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RUSSIAN FINANCE: A BAD INVESTMENT.

THE recent failure of the Russian loan—for such is its indefinite postponement—has directed general attention to the condition of Russian finances, and it is but natural that it should do so. Prince Bismarck was much blamed when, some years ago, he undertook a financial campaign against Russia, forbidding the Imperial German Bank to make advances upon Russian bonds; and we think this blame was deserved, for the measure did not tend to protect German capitalists against losses arising from the possession of such securities, but on the contrary inflicted considerable losses upon many of them, who, being frightened by the chancellor's prohibition, sold their bonds at a heavy discount. It was evident that the action of Bismarck, who several years before had floated a Russian loan by a governmental institution of credit, the "*Seehandlung*," was prompted by merely political reasons. He wanted to show Russia, with whom he was discontented, that he was able to damage her credit; but even this purpose was not attained. The measure, indeed, caused much bitterness in Russia and stirred up the enmity of the Panslavists against Germany, but it did not make the Russian government more pliant; an empire of 100,000,000 inhabitants may be irritated by such "*coups d'épingle*," but it can be checkmated only by blows, attacking its vital forces.

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The measure, therefore, dictated by rancor, was an unwise one, but the question whether the Russian finances are in a satisfactory condition is a very different one. It might be presumed that they are so, judging by the rise of the rate of exchange of the rouble and of Russian securities, and by the apparently successful conversion of Russian loans. I maintain, however, that to believe this would be a great error, and in order to prove my assertion I shall venture to give some idea of the economical position of the great eastern empire.

From 1872 till 1882 Russia nearly doubled her debts, and the deficit, which in the preceding ten years was 110,000,000 roubles, has risen in the following decade to 240,000,000, the expenses being 40 per cent. larger than the income. This deficit was covered by increased taxation, by foreign loans to the amount of £164,500,000 sterling, by internal loans of about 2,600,000,000 roubles, and by the issue of 915,000,000 of inconvertible paper money. The five-per-cent. foreign loans were issued at the average rate of a little more than 82; the rate of interest was nominally 4.62 per cent., but in relation to the sum received in specie 5.66 per cent. Looking back a little further, we find that the foreign debt of Russia payable in gold was, in 1842, £6,000,000; in 1852, £12,000,000; in 1862, £41,000,000; in 1872, £105,000,000; and in 1882, £189,000,000. The internal debt had risen within this period from 230 million roubles to respectively 610, 990, 1,330, and 2,730 million roubles. Now it would be an error to assume that the larger part of these debts were incurred for internal purposes. The railways existing in 1882 cost 2,620 millions, of which the government paid half, so that it was in possession of 1,320 millions of shares and bonds and moreover paid 210 millions a year to shareholders as a guarantee and 25 millions for telegraphs; the remainder was expended for unproductive purposes, mostly military ones. Since 1882 the debt has been continually increasing. In 1883 there were issued six-per-cent. gold *rentes* to the amount of 50,000,000 roubles; in 1884, 20,000,000 in gold and 84,000,000 in paper; in 1887, 96,000,000; and in 1889 a metallic loan of 125,000,000, besides 100,000,000 for railways, so that in the budget of 1890, amounting to 888,800,000 roubles, 266,146,192

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were absorbed by the public debt, while the inconvertible paper money amounted to 1,044,295,384 roubles, of which only 211,472,495 were covered by a metallic reserve.

In that year the total of the public debt was:

Metallic roubles,	955,174,161
Paper roubles,	3,021,504,190
Dutch florins,	60,482,000
Pounds sterling,	40,482,100
Francs,	540,079,000

Setting aside the above-mentioned 266 millions for interest and sinking fund for the debt, the army and navy absorb about 260 millions (an enormous burden for a country in which 92 per cent. belong to the poorer classes), and the budget of 1889 closed with a deficit of 40 millions. Besides, it must be observed that in the published preparatory budgets the finance minister always overrates the income—as, for instance, in 1885 a considerable increase was assumed from a tax on the tents of the Turkoman tribes, a very questionable item of revenue—and that he likewise underrates the expenses, which are swollen every year by large supplementary credits.

It is now said that the present finance minister, Vishnegradski, has effected a great amelioration, as is proved by the re-establishment of the equipoise in the budget, by the rise of the rate of exchange of the rouble and of Russian securities, and by the conversion of former loans. I admit that the minister has cut down the expenses so far as it was consistent with his staying in office, but as for the rest I maintain that the amelioration was purely illusory.

Let us first look at the conversion of loans, in regard to which the Russian and French press boast that the loan of 500,000,000 francs of December 22, 1888, was covered two and one-half times; that of 700,000,000 francs of April 10, 1889, ten times; and that of 1,242,000,000, of June 5, 1889, eight times. Now, what is a conversion? It is simply an act by which the debtor gives to the creditor the alternative of being satisfied with a lower rate of interest or of taking back his capital. In this way Mr. Goschen converted the three-per-cent. consols into two-and-three-quarter per cents. and the German government its

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four per cents. into three-and-one-half and three per cents. But it is a very different thing if the debtor, while reducing the rate of interest, enlarges the capital, or if he only extends the period of the sinking fund; and both have been done by Russia in her recent conversions. Take, for instance, that of 1888: The loan in question was a loan at five per cent. of 81,300,000 roubles, which required 5,688,000 roubles for interest and sinking fund, and which would have been paid back in 25 years. By the conversion at four per cent. the capital was increased from 81,300,000 to 97,250,000 and the period of the sinking fund was extended from 25 to 81½ years. In the following loan a debt of 23,500,000 roubles at five per cent. was converted into a four-per-cent. loan of 27,834,000 roubles, to be extinguished only in 81½ years. The total of such conversions shows that the capital of 508,500,000 roubles at five per cent. was exchanged for one of 582,644 000 roubles at four per cent.—an increase of 15 per cent. The reduction of interest is, in the first 25 years, 3,630,-477 roubles annually—in all 90,761,925—while for the ensuing 56 years 448,689,169 roubles more will have to be paid, for it is only in 1970 that the four-per-cent. loans will be paid back. It is said that the shrewdest heads of Europe "put their money on Russia" and that the great Jewish financiers have not been frightened into refusing to float the newest loan because they disliked the security. But those financiers float a loan only in order to sell it to the public, who will be the ultimate losers, the devil taking the hindmost. It is very conceivable that French bankers were ready to conclude such loans, because they realized enormous profits by them, the commission which the Russian government paid being 1.573 per cent. for the first loan of 125,000,000, 2.85 per cent. for the second of 175,000,000, and 2.729 per cent. for the third of 310,498,000; but such conditions surely do not prove an amelioration of the Russian credit. On the contrary, a government which consents to such terms shows that it is living from hand to mouth and must have money at any price. The increase of the custom duties payable in gold is another proof of this; they have heavily damaged Russian commerce, exports falling from 667,500,000 roubles in 1882 to 450,000,000 in 1886, imports from 527,500,000 to 379,750,000.

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The profits of the prohibitive policy go to the Russian manufacturers, who realize enormous gains, but who, protected as they are against foreign competition, neglect all progress in production. Moreover, it is curious to observe that, as Mr. Lanin has pointed out in a recent number of the "Fortnightly Review," the greater part of these manufacturers are foreigners; in the first guild of the Moscow merchants less than half are Russian; of 232 export and commission houses of that city 192 are in the hands of foreigners. The cost of this system is entirely borne by the domestic consumers; when, for instance, some years ago foreign coal was heavily taxed, the Russian producers raised their prices enormously without making provision for a sufficient supply of coal. Coal was thus sold at fancy prices, so that many factories had to be shut up, notwithstanding the protection afforded to their manufactures. The premium accorded for exported sugar increased the produce sixty-eight fold, but by far the larger part went to foreign markets, which are flooded with cheap sugar. England and Persia pay for Russian sugar 350 per cent. less than the Russian consumer; so that Russian sugar, which has been growing inaccessible to the poorer classes, is now smuggled from Persia into Russia.

But it is agriculture which fares worst with this system. With the enormous duties on agricultural implements and machines, the few Russian manufacturers were unable to meet the demand; they could, for instance, furnish only 40 threshing machines of the 400 which were wanted, the rest had to be imported from Germany and England and 8,000,000 roubles in custom duties had to be paid for them. A plough of the ordinary kind costs in Germany 2.72 roubles, and in Russia, 5.30 roubles; while the import of scythes, which are not made in Russia, entails upon agriculture an average expenditure of 311,109 roubles in custom duties. Now Russia is, notwithstanding the manufactures fostered by protectionism, in the main an agricultural country. According to a report of the secretary of the English embassy, Mr. Kennedy, in 1885, the area occupied by corn rose in European Russia from 155,000,000 acres in 1872 to 167,000,000 in 1879, but fell in 1883 to 136,000,000; the produce rose from 1,281,000,000 bushels to 1,498,000,000, but in 1883

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went down to 701,000,000. The export remained the same, namely, 229,000,000 bushels—a fact which shows the impoverishment of the country. This condition has within later years become still more unfavorable, the export of corn having fallen from 427,000,000 bushels in 1888 to 352,000,000 in 1889.

If we consider that the spirit excise rests mainly on the poorer classes and that they bear the principal burden of the military conscription (12 men per square mile in a very thinly populated country) the pressure of the present system on the agricultural population becomes evident. But it supports also the heaviest part of direct taxation. In his report of 1885 Mr. Kennedy was of opinion that the limit of taxation was practically reached. He was right, according to sound principles, but Mr. Vishnegradski has understood how to squeeze out considerably more from the country, by applying the harshest measures for collecting arrears which seemed hopeless and by enforcing the payment of the present heavy taxes. In fact, it may be said that, notwithstanding its last good harvests, Russian agriculture is bankrupt. At the agrarian bank founded for the nobility, the arrears had risen in April, 1888, to 109,712,000 roubles. In order to cover these arrears the government issued a lottery loan, and yet 300 estates of the nobility are now to be sold by the bank for unpaid interest. This indebtedness may be ascribed to the prodigality with which the nobles are living, but the same cannot be said of the peasants, who are forced to borrow the money required for the payment of taxes at 100 per cent. from usurers. These usurers, who are not Jews but orthodox Christians, are also the retailers of brandy, and the government dares not meddle with them because the spirit-excise yields more than one third of the revenue—275,000,000 roubles, while the total expense for schools is only 25,000,000.

A fiscal system working in this way, for the present day only, in order to scrape together every available rouble, and which annihilates the sources of popular wealth, on which the soundness and the elasticity of the revenue repose, is short-sighted, and must inevitably lead to ruin, exactly as did the French fiscal policy at the end of the last century. And with all this, Russia follows continually an aggressive foreign policy,

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menacing her neighbors by assembling large masses of troups on the frontiers and intriguing against the independence of the Balkan states, as has been shown in the late plot against Bulgarian ministers. On the other hand the internal misrule has become proverbial; corruption pervades the whole ill-paid bureaucracy, as has been proved most conspicuously in regard to the railway administration, the abuses of which have been lately demonstrated in a book by M. L. Kotlubay ("*Zheleznodorozhny Mir*") which has caused the greatest sensation and has not been refuted. The author proves that the number of railway accidents in Russia is larger than in any other country and that this is mainly due to the negligence of the officials, who are overworked and underpaid. They try to make money by every means; in winter they pocket the wages destined for the workmen who remove the snow from the rails, and if a merchant wants to have his timber promptly forwarded, he has to bribe the principal agents, while factories are yearly paid for which merely exist on paper. The cause of this is the scanty pay of the officials; the directors have 1,200 roubles a month, while the porters get only from 20 to 40 roubles for a service of 24 hours. The main end of the shareholders is to declare large dividends, and those who suffer from this system are the travellers, who can never obtain any redress for their grievances.

There are, of course, railways connecting the great centres, which pay well, but most lines are worked at a loss, the distances being too great in a comparatively thinly populated country. Others have been built principally for strategical reasons, one of the most striking instances being the Transcaspian Railway. It is a wonderful specimen of engineering art, and as such will remain a lasting memorial of the genius of its constructor, General Annenkov, who, undaunted by the difficulties of laying rails in the shifting sands of the desert and of protecting the road when finally constructed, has pushed this line into the very heart of central Asia. But this railway, passing through thousands of miles of uncultivated land, inhabited only by nomads, cannot pay in our day. By it Russia has established her dominion in central Asia, but more than a century may pass before commerce will so far progress as to make it profitable.

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The same may be said of the projected Siberian railway, which is destined to connect the border station, Tumen, with Vladivostok on the Pacific, that is to say, to stretch from the 60th to the 190th degree of eastern latitude. Apart from its enormous length the construction of this road will be very costly on account of the large rivers which will have to be bridged and the ranges of mountains which require to be pierced by numerous tunnels. Only the southern part of this enormous country, which covers more than 12,500,000 square kilometres, is fertile, and the whole population was estimated at 4,313,630 in 1885. Northern Siberia is rich in fur-bearing animals and in minerals, but the produce of the mines is scanty, and the distances from the projected railway are so great that it will probably be preferable to transport the merchandise by water and carriage as is done at present. The railway will, if finished, undoubtedly exercise a civilizing influence; but for generations to come it can only be worked at a heavy loss.

The same gross misgovernment to which we have alluded in the railway administration prevails in every other department and engenders general discontent, as is clearly shown by the continual plots of the Nihilists. I therefore come to the conclusion that a government reposing upon such a system is hollow and not a trustworthy debtor to which European capitalists may confide their money. At last the bubble has burst, and the halo with which Russian finances were surrounded has disappeared by the collapse of the last Russian loan. It was in itself preposterous to issue a three-per-cent. loan of 600,000,000 roubles at 84 for a country which is in the economical position which I have tried to explain, but it seems certain that this time the Rothschilds withdrew from bringing forward that loan on account of the cruelties committed against Russian Jews, in which, according to recent reports, the Czar persists under the pretence that Jews were involved in all the plots against his life. However that may be, the civilized world has approved the repugnance of the great banking-houses, for a general cry of horror has been raised at the atrocities with which the Russian Jews have been visited. These unfortunate people are, for the most part, a legacy of the partition of Poland, in which they certainly

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had no concern. They are kept together by the bonds of common religion and by their language, which is a mixture of gibberish German and Hebrew. As only a certain percentage of Jewish children are allowed in the national schools, it is natural that they should maintain their peculiarities. They are not allowed to be land-owners, or to till the soil as farmers. What then remained for the Jews but to turn to trade in its simplest form as middlemen? As such intermediaries they are indispensable in the sparsely populated country in order to bring together the producer and the purchaser.

After the partition of Poland the Empress Catherine II. made pales of settlement for the Jews, which at that time were sufficiently large, but have become far too small with the increase of the peculiarly prolific Jewish population, which in many towns outnumbers the orthodox inhabitants. So the Jews tried to obtain other means of livelihood by paying largely for the concessions. They can scarcely be blamed for this, as the authorities took their money, yet, though they are accused of pursuing only one profession, they are denounced as lawbreakers when they try to practise other trades. The authorities have now suddenly resolved to withdraw all the concessions which they themselves sold to the Jews and to enforce against them the old penal laws, forcing them to return to the old pales of settlement, which, of course, are overcrowded and do not yield the possibility of gaining a livelihood. Nothing remains to the Jews, therefore, but emigration, but that is a costly thing in Russia, where no one is permitted to cross the frontier without special permission. So they are obliged first to pay heavily for the necessary passport and then to bribe the frontier officials to let them go. The well-to-do thus pave their way to other countries, realizing their property at a heavy discount, and go to America or to England, flooding London and New York with unskilled labor and poverty, which reduce the rate of wages and the misery of the native lower classes. The very poor and helpless Jews are compelled to stay in Russia, and are herded together forcibly in such numbers that they prevent each other from earning what they did before.

This is the policy which has provoked an indignant protest

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in all countries (except perhaps in France, where public opinion is blind to every Russian sin for the sake of an alliance which will never be realized); for those countries are placed in the alternative either of refusing hospitality to the unfortunate immigrants or of increasing vastly the ranks of their own penniless laborers. But this policy has had its reaction on Russia herself, for however autocratically governed and self-isolated from Europe, she is dependent for her credit on the European exchanges. In order to make her more independent Mr. Vishnegradski has contrived to amass large metallic reserves in foreign banks, drawing gold from every part of the world. These sums were destined to keep up the rate of exchange, but at the same time to be a war fund in case of foreign complications, and are stated to amount to at least 700,000,000 francs. These reserves may be withdrawn at any moment, and thus would seriously embarrass those banks. The recent loan was meant to increase this fund, but with its failure things will assume a different shape. Russia must pay her foreign creditors from the fund, which, consequently, will go on lessening. The "*Novoe Vremya*," a Panslavist paper, tries to console itself by the argument that Russia may convert her internal loans, but this is a fallacy, for the reaction of the European failure will not only be a fall of the rate of exchange of the rouble, but a rise of interest in Russia herself, so that the conversion will become impossible.

In short, I think the financial condition of Russia to be a most precarious one. Undoubtedly she has great resources; so has Turkey, but natural treasures are of no avail without the human hand to turn them to the benefit of the nation. As the French finance minister, Baron Louis, said to his colleagues, "Give me a good policy and I will give you good finances." Russia must reform her corrupt administration and her preposterous fiscal policy, she must abandon her aggressive external policy which constantly threatens peace, if she wants to inspire confidence in European creditors. Until she does so, I would warn every capitalist against investing his money in loans which offer no real and lasting security and are mainly calculated to form a fund against the interests of peace and civilization.

F. HEINRICH GEFFCKEN.

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THE PERSECUTION OF THE JEWS.

THE characteristic feature of the historical epoch in which we are living is an intimate connection between all the nations of the world. It is not mere humanitarianism or philanthropy that directs the attention of the whole world to the so-called "interior affairs" of each nation. In the seventeenth century the Cossacks could massacre 900,000 Jews in Little Russia without being disturbed in this pastime by the intervention of the neighboring nations; nowadays, when there are railroads and steamers to remove hundreds of thousands of wretched beings from the scene of their persecution, it becomes of deep vital interest for all countries, and especially for England and the United States, to consider the anti-Semitic crusade in Russia.

The Jews in Russia are often spoken of as foreigners and new-comers. In truth, very far from being new-comers, the Jews had settled in the places of their present residence some seven centuries before those places were conquered by Russia. In the Muscovite state the Jews were never allowed to settle permanently, and later on the St. Petersburg emperors pursued the same course. But with the acquisition of Poland and Lithuania, Russia received a heritage of about a million Jewish subjects who had been living there from time immemorial. The policy adopted toward the Jews was very simple: all the restrictive statutes excluding Jews from residence in Russia proper remained in full force, and in the provinces of the former Polish crown the Jews were left under the old Polish laws. These laws, which date from the seventeenth century and even further back, are still, with some exceptions, the foundation of the present legislation concerning Jews in Russia.

It would be idle to inquire into the justice or injustice of the legal discrimination practised against the Jews in old Poland, in the days when the bonfires of the Inquisition blazed throughout Europe and when Huguenots were driven from France by armed

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force. As a matter of fact the Jews had nothing left to them except commerce. In a feudal state land could be owned only by the noble, or held by the bond slave. In the towns, again, the guild organization of handicrafts virtually debarred the Jew from trade, as the Jew was not allowed to join the guild. It is superfluous to add that, not belonging to the Polish nobility, a Jew could not be appointed to any public office. Poor, ignorant, fanatical, the Jews formed a lower class in the nation, despised and maltreated by all the rest of the people.

Such was the condition in which the Jews entered under the protection of the government of the Czars. The Russian law is altogether different from the law of any contemporary civilized country. The fundamental principle of constitutional law declares the state to exist for the purposes of the individual; in Russia, on the contrary, the individual is considered to exist for the purposes of the state. No exception, of course, was made for the Jews, who became objects of incessant experimentation *in corpore vili*. Now they were induced to join the Greek Church, in order to assimilate with the Russian people; now they were encouraged to purchase land and to practise agriculture; now they were expelled from the villages, in order to prevent them from selling intoxicants.

Prevailing among the Jews there is an impression that the advent of the Czar Alexander II. was attended by a revolution in the underlying principles governing legislation for Jews. But this was far from being the case; the Jews remained the objects of exceptional legislation as before. Political and economical conditions, however, caused Alexander II. to grant the Jews some additional immunities, some new privileges for certain classes of Jews, but no universal rights. In reply to a question about the condition of the Jews, the governors-general and governors of the provinces inhabited by Jews reported that there were many skilful artisans among them who still were living in abject poverty because of extreme competition. Prince Vasilchikov, governor-general of Kiev, stated his convictions as follows:

"Were Jewish artisans allowed to work at their trades in the interior provinces of Russia, it would deliver the Jewish communities from an

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onerous burden in the paying of taxes, while on the other hand, it would supply mechanics to districts which are in need of them; besides—and this is of still greater importance—the baneful influence exerted at present by the revolutionary agitation of Poles upon an idle crowd, would be prevented by that measure." *

Thus, originating in financial and political considerations rather than in any solicitude for the interests of the Jews, the new legal measures fully answered the intended purpose. Skilled Jewish artisans belonging to guilds, and certain classes of merchants with their clerks, were allowed to stay permanently or temporarily without the boundaries of the so-called "pale of settlement" embracing the provinces which formerly belonged to the Polish crown, and New Russia. Thus it was that a Jewish population, some hundreds of thousands strong, was spread outside the established "pale." On the other hand, the government deemed it necessary to create in the western provinces a strong local element brought up in Russian civilization, as a counterweight to the Polish nationalistic aristocracy. The bulk of the Jewish population presented at that time, with some exceptions, quite a *tabula rasa* for any civilizing influence. The government opened to them the doors of almost all public educational institutions, and encouraged Jewish pupils by means of free tuition and fellowships, and by making accessible to Jews, in a measure, the public offices. The metamorphosis effected by this policy during the life of a single generation was indeed astounding. In large cities inhabited by Jews, where a quarter of a century ago scarcely a hundred people could be found who understood Russian, Russian has now become the mother tongue of a considerable portion of the Jewish population. One or two pupils of the Jewish race in a class of forty to fifty boys was the usual proportion as late as twenty years ago; in 1887 the number of Jews in the high schools or gymnasia attained in some places 80 per cent. and even more. A Jew with a high-school or university education is no longer a Jew, as a matter of nationality, but as good a Russian as any of his fellow citizens. Apart from the fact that in so short a

* "Principles of Russian Public Law," by A. Gradovsky, Professor at the Imperial University of St. Petersburg. Vol. i. (1875), pp. 423-424.

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time the Jews have achieved prominence in every department of social life—commerce, law, medicine, science, literature, art, etc.—the participation of the Jewish youth of both sexes in the revolutionary struggle against autocracy is a most striking proof of the effected assimilation. The Poles, living side by side with the Jews, have appreciated better than some Russians do now the true extent to which the Jew has become Russian; hence a strong anti-Semitic feeling among the Poles.

The beginning of the present reign and the breaking out of the anti-Jewish riots in 1881, opened a new era in the history of the Russian Jews. The period of the so-called "national policy" of Count Ignatiev was inaugurated by the famous "Provisional Regulations for Jews" of May 3, 1882, bearing the signature of the Czar. In virtue of these regulations, new settlement outside the towns and boroughs was prohibited to Jews, and the acquisition of titles to real estate, either as property or by mortgage or lease, was forbidden to Jews without the precincts of towns and boroughs. This "temporary" law became a source of innumerable "temporary" sufferings.

What is the meaning of "new settlements?" That head-breaking question was a great vexation to the local authorities. Now a family who had left home for a short time on account of business, or to take part in some religious service, were considered as "new settlers" on their return to the village where they had been living for scores of years.* Now a Jewish soldier who had served in His Majesty's army was not allowed to remain at home with his family, being a "new settler" in the opinion of the authorities.† Then the governor-general of the south-western provinces discovered that the Jews were not allowed to remove from one house to another within the precincts of the same village, as that would constitute a "new settlement," and as, besides, Jews are not allowed to lease houses in villages. Some of those cases were brought before the Senate who, to do

*See the ukase issued by the Senate to the Provincial Council of Chernigov, November 2, 1884, in the matter of Khututzky and others.

†Ukases of May 23, 1884, and January 30, 1885, in the matter of Riezniknov. Also "*Niedielnaya Chronika Voskhoda*" (a weekly paper), No. 45, 1890, letter from Brest-Litovsk; No. 20, 1889, letter from Liebiech.

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them justice, sometimes settled the matter in favor of the appellants—unfortunately, however, always two or three years after the right parties had been evicted by the police and, consequently, entirely ruined. And in such cases there is no action for damages against officials. Moreover, the decisions of the highest court of the empire do not even serve as precedents to the local authorities, who continue to pursue practices decided to be unlawful. Jews being forbidden to conclude contracts on landed property, the police did not allow them to cut timber in the forests. This restriction was decided to be unlawful by the Senate, inasmuch as wood removed from the soil is a chattel, which Jews are not forbidden to acquire.* Nevertheless two Jewish clerks, named Jacob Zermann and Schlnessmann respectively, were expelled by the police from a forest in the district of Novaya Oushitza, and when they returned again they were tried by the special session of justices of the peace. Strange to say, one of them was released, Justice Hamburtzev being in the chair, while the other was sentenced to three months' imprisonment, the presiding officer being Justice Smaragdov.†

In a word, life in villages has been made unbearable to Jews. A Jew is not allowed to shelter under his roof his aged parents unless they lived in the same village before 1882; he cannot take care of his relatives living in the neighboring hamlet, as he is not allowed to stay there with them and as they are not permitted to dwell in his house. He cannot oversee his property situated in another village. He is not permitted to restore his house after it has been destroyed by fire, or to renew a contract on a mill or on a farm that has for years been rented by his father and grandfather.

Yet there was always one law for non-Jews and another for Jews; according to the general rule everything not prohibited is allowed, but in regard to Jews everything not allowed is prohibited. In 1877, still the "golden age" of the Russian Hebrews, a Jewish butcher living outside the "pale" was condemned for

* Decision of the General Assembly of the I. and Cassation Departments, April 4, 1888; Ukase issued by I. Department to the Podolsk Provincial Council, January 29, 1890.

† "*Sudebnaya Gazeta*" (Court Gazette), No. 13, 1891.

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having sold meat to Christian customers, and not to his co-religionists only, as in accordance with the opinion of the court he should have done, there being in the law no special provision which would allow Jewish butchers to sell meat to Christians outside the "pale of settlement." This sentence was affirmed by the Court of Appeals and the Supreme Court of the empire.* Since the beginning of the present reign such chicanery has become epidemic. Now a watchmaker is found guilty of selling watches, while according to the talmudists of the court he could only repair them.† Then it was discovered by the minister of finance that Jewish handicraftsmen living beyond the pale of settlement are not allowed to use machinery in their work, the word "handicraft" (*remeslò*) signifying only "handiwork," *i.e.*, work without any automatic implements.‡ These cases are repeated *ad infinitum*.

In the course of the last two years tens of thousands§ of Jews were expelled, according to newspaper reports, from various cities of Russia, not to speak of the previous expulsions during the former eight years. No exception is made for sex or age; in February, 1889, a man 105 years old, Meyer Dimentstein by name, was arrested and expelled from Kiev for having resided there without a legal right to do so.‖ The desperate condition into which the Jews are sometimes driven, in trying to avoid expulsion, is best illustrated by the following incident which took place at Moscow a few years ago. A Jewish girl, who had come to the capital to study short-hand, was about to be expelled; she then registered as a prostitute, though remaining innocent, and this registration, according to a special rule, gave her the right to reside in Moscow and practise any profession she liked. Is it not

*Decision of the Criminal Department of the Senate of 1877, in the matter of Krupkin.

†M. J. Mysh, "Manual of Russian Legislation about the Jews" (published by the monthly "*Voskhod*"), p. 190.

‡Ib., Order issued to the Revenue Office of Moscow, January 30, 1882.

§Ib., p. 121. The number of those only who were expelled or are about to be expelled from within 50 versts from the frontier, according to a new "interpretation" of the law, is estimated to be at least 80,000.

‖"*Niedielnaya Chronika Voskhoda*," 8, 1889. The news was copied by all the Russian papers.

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characteristic of the anti-Semitic policy in Russia that educated Jewish women, graduates of colleges, are expelled from Moscow, while Jewish prostitutes are granted permission to reside there?

Restricted in all their natural rights, oppressed and pursued by the law and in spite of the law, the Jews are nevertheless forced to shed their blood for a country where they are considered as foreigners and treated far worse than foreigners. It is only too natural that Jews are not willing to serve in the army; why should they? The anomaly of such a condition seems to have formerly been understood by the government, and accordingly discharged soldiers of the Jewish faith were in 1865 granted the right of residence throughout the empire. But then came the "democratic" reform of military service of 1874, which was followed by this interpretation of the law:

"Whereas there is no more a special class of soldiers, all the classes of society being equally bound to defend their fatherland, therefore all previous privileges (*sic*) granted to Jewish soldiers may refer only to those who had served their terms under the old statute of recruits, not under the new law of universal military service."*

In other words, Jewish soldiers who are bound to defend their "fatherland" like all the others, shall not be henceforth allowed to reside in the fatherland aforesaid.

This interpretation gave rise to a new practice, curtailing the civil rights of Jewish soldiers and their families,† and reviving, in application to Jews, the leading principle of Russian law of the seventeenth century, whereby a crime committed by an individual entailed the responsibility upon the whole community of which he was a member. An ordinance issued recently by the governor-general of Warsaw reads as follows:

"It often happens that the enrolling of Jews in the army is delayed because of their deficient bodily development. Recruiting boards have the

* Circular of the Minister of the Interior, November 11, 1885; Decision of the Criminal Department of the Senate (1887), in the matter of Zhivotinsky.

† Ukases of the I. Department of the Senate: November 11, 1886, in the matter of Kamensky; March 31, 1887, in the matter of Neufeld; May 4, 1887, in the matter of Canfor; November 18, 1887, in the matter of Bach; December 16, 1887, in the matter of Levin; October 11, 1886, in the matter of Mirkis. Decision of the Civil Department, No. 39, 1888.

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power, however, to subject such recruits to sudden examinations, regardless of delay. Since the places to which they are called for examination are, in the majority of cases, at considerable distances from the homes of the recruits, the latter, remaining free from surveillance, may either manage to maim their bodies before reaching their destination, or to substitute other persons for themselves, in order to avoid military service. To prevent such cases it has been found necessary that Jewish recruits should be forwarded from their homes to the boards in no other way than by *étape* [that is, with gangs of prisoners]. The Department of the Interior, as well as the Department of War, sees no reason why Jews whose service in the army is delayed by physical backwardness, should not be brought by the police before the boards for medical examination, in cases where such a course becomes necessary." *

Thus all young Jews who comply with the law and duly report for military duty are invariably imprisoned with criminals and handcuffed to burglars and incendiaries, stopping every now and then in the jails on their route, lest some of them might maim themselves! There is a law that "no one shall be punished except for a crime and by sentence of a court;" † yet this law is not enforced by ministers and governors-general. On the contrary, there is to-day a bitter rivalry among the officials to outdo each other in "anticipation of the views of their superiors," that is, in inventing some new oppressive measure against the Jews. This peculiar sport is moderated only by the general corruption of the police, which makes it at times possible for the Jews to obtain relief from the endless series of prohibitions standing in their way. Hence the new charge against the Jews of "eluding the law." It must be borne in mind that Russian legislation about the Jews is made up of statutes belonging to quite a different historical epoch from ours. A trip from Warsaw to Siberia takes nowadays no longer than a journey to St. Petersburg fifty years ago. The development of trade and commerce has made it impossible for millions of people to be confined within the bounds prescribed to them in the seventeenth century. To insist on the enforcement of laws that have become obsolete is surely equivalent to the enactment of new oppressive measures. It is a universally accepted rule of jurisprudence that a law may be repealed by coming into disuse. There seems to have been a time when

* "*Sudebnaya Gazeta*," No. 3, 1891.

† Code of Criminal Procedure of the Emperor Alexander II., §§ 1 and 14.

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this was recognized by the Russian rulers. In 1880, during the dictatorship of the liberal Loris-Melicov, it was ordered by the minister of the interior that those Jews who were residing outside the pale of settlement before the promulgation of the ordinance already mentioned should not be expelled, even if they had lived there unlawfully. The principle stated herein, however, was very soon forgotten; and owing to the anti-Semitic rage the policy of the government is now taking quite an opposite direction, as is shown by the recent banishment of at least 30,000 Jewish "mechanics, distillers, brewers, and artisans" from the city and province of Moscow, in conformity with the ukase of the Czar of March 28, 1891. Who is next? that is the question every Jew is asking himself at present. Who can foretell what is going to happen to-morrow?

The whole number of those who are expelled or are to be expelled, according to the new regulations, has been estimated by the London Russo-Jewish Committee at more than one million. This number hardly seems to be exaggerated; there are no statistics in Russia to show in figures the intensity of the persecutions, but we may draw some conclusions from the fact that more than 200,000 Russian Jews have emigrated to the United States and more than 50,000 to England, since the riots of 1881, at the beginning of the present anti-Semitic policy. Many more have overcrowded the towns of south-western Russia for want of means for emigration. Besides, all the restrictions concerning trade, commerce, liberal professions, education, etc., are weighing upon all Russian Jews without exception. It may therefore be said that the number of those crushed down by Russian despotism exceeds by far that of the Bulgarian sufferers who excited public sympathy in 1876–77.

All classes of English society have united in a strong protest against the barbarous treatment of millions of innocent children, women, and old men of the Jewish race. A large meeting of London workingmen expressed their sympathy with the victims of the persecutions. Another meeting, presided over by the Lord Mayor of London, was called by the most prominent representatives of the English aristocracy, with the intention of reaching some practical results. By its refusal to accept the memorial

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offered by this Guildhall meeting, the Russian government has thrown down the gauntlet to the English nation and to the whole civilized world. The anti-Semitic press in Russia and the well-known advocate of Russian autocracy, Madame Novikov, in the London papers, were unanimous in ridiculing this manifestation of public opinion; a great military power, they say, having 2,000,000 soldiers, will not listen to arguments from public meetings in foreign countries. Nevertheless, the Guildhall memorial has produced a permanent effect, which seems to me to be of the greatest importance; it has unquestionably settled that the Russian autocracy is deaf to any arguments of public opinion, however moderate and respectful, and that it recognizes no other law than that of brute force.

Nothing seems so disgusting as the question, much discussed now in the press, whether the Czar himself favors or hates the Jews, whether he knows or ignores the real condition of affairs in Russia, whether he is a gloomy despot or a tender-hearted father and patriarch. Although no one, not even a newspaper correspondent, is able to read the heart of the Russian Son of Heaven, I would fain take for granted his domestic virtues as well as his ignorance; yet of what consequence is it in connection with the question? Granted that an autocrat may be powerless to the extent of being unable to obtain the Russian newspapers, where the meanest of his subjects may learn day by day examples of cruel oppression and misuse, reported as a matter of fact, in a very business-like manner; is it not distressing that the destinies of millions should depend upon the good will of a single pious man who, "knoweth not what he doeth?"

Yet even in an autocratic monarchy there are some other agencies besides the Czar to determine public policy. There can be no doubt that the anti-Semitic views of the government are shared by a considerable portion of the people. What are the reasons of this general anti-Jewish feeling? Is it a matter of bigotry or of race prejudice? Both of these elements, unquestionably, play their parts in producing the present persecutions. Although the educated Russians are not, as a rule, religiously inclined, yet the lower classes, including the merchants,

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are very religious, and the government in its turn maintains by all the means in its power the predominance of the Greek-Catholic Church. Jews are despised as "miscreants" by the masses, while as dissenters they are oppressed by the state. There are regulations limiting the freedom of Jewish religious service,* but on the other hand a Jew may get rid of all restrictions by becoming a Christian. Of still greater moment is the innate racial aversion to Jews which is universal among the educated and atheists, as well as among the ignorant and orthodox. However, these factors are only derivative phenomena having their roots in the economical and political condition of Russia. The main question to be considered is: Who is benefited by the persecution of the Jews?

The general outcry is now against "Jewish exploitation." *Habent sua fata libella*, and words have their fates too. It is rather peculiar to hear a governor-general talk of "exploitation," which some fifteen years ago was synonymous with socialistic propaganda punished by exile to Siberia. In the language of socialism, whence the word came into the Russian press, "exploitation" means any industrial gain except by labor. Now, is there really some specifically "Jewish exploitation?" Is it true that the Jews are parasites, avoiding productive labor? Go to any of the cities within the celebrated "pale"; you will be convinced of the absurdity of such an assertion. The majority of the inhabitants of towns and boroughs, amounting sometimes to 90 per cent. of the whole, are Jews. Is it possible that all those people should be supported by the rest? As a matter of fact, every kind of productive work is, in the cities of their residence, confined to the Jews; there are very few Christian laborers there even for the hardest work of blacksmiths, carpenters, diggers, carriers, etc.; the overwhelming majority are Jews. Of course, a considerable part of the Jews are middlemen, or, to use the word in vogue, are engaged in "exploitation." Suppose, for argument's sake, that persecution of business people is the wisest policy for the welfare of the working classes, what is the

*Code of Laws of the Russian Empire, Vol. XI., Part I., Law on the Religious Affairs of Foreign Denominations, §§ 1060–1862; Vol. XIV., Law on Prevention of Crimes, § 98.

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use of persecuting one class of "exploiters" while others are given full play? The answer of political economy would be that by so suppressing competition nothing but a monopoly for the Christian business men will be created, which will accrue to anything but the benefit of the working-classes. Some facts taken from the life within and without the pale of Jewish settlement will make the matter plain.

We read in a letter from Orgeyev, a town within the pale, that on account of a claim of a village usurer against several peasants, their estates were sold by auction. The houses were estimated first at 100 and 150 roubles each, but there having been no buyers, the sale began the second time below the estimate. The Jews who were present could not take part in the sale, being barred from the acquisition of real estate in villages. Thus the creditor, who was the only bidder, took all the houses at from six to nine roubles each, and the peasants, after having lost their property, remained still insolvent debtors of the Russian orthodox usurer (*kulak*).*

Another characteristic fact was reported from the district of Pavlovo, Province of Nizhni-Novgorod, one of the principal centres of petty industry, which is of great importance in Russia:

"After the Jews were expelled from the market by order of the governor, the general condition of the artisans became worse than ever. The Jews bought every week wares for many thousands in cash. . . . Now the artisan can never get a fair price. Still, even when selling at half price, he is not paid in cash, but is compelled to receive payment in truck. . . . Thus he cannot help carrying his products to the usurer and paying the latter two per cent. a week. In this way the artisan is placed at the mercy of the usurer."†

As it was stated afterward by V. G. Korolenko, the prominent Russian novelist, who inquired into the matter on the spot, the expulsion of the Jews was a result of intrigues of the *kulaks*, whose receipts were lessened by Jewish competition and who requested the authorities that the Jews should be expelled from the market. Similar petitions were offered also by the stall-keepers at the market of the city of Kiev, by the fishmongers of

* "*Niedielnaya Chronika Voskhoda*," No. 2, 1891.

† "*Russkiya Viedomosti*," No. 60, 1890, and also "*Petersburgskiya Viedomosti*" (a conservative and somewhat anti-Semitic paper), January, 1890.

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Tzaritzyn, and so on, as usual under the pretext of protecting the "genuine" population against "Jewish exploitation."

These facts sufficiently show who gain by the anti-Semitic policy. By oppressing Jewish merchants, lawyers, physicians, civil engineers, guild artisans, clerks, and the like, more freedom is given to their Christian competitors. Thus, material benefit, that prime motive, is held out to the orthodox Russian middle class as a bait for their support to the government, by identifying material interest with the safety of the present political system. On the other hand, the "national" campaign against "Jewish exploitation" plays in Russia the same part as was played in Germany by the so-called "Christian socialism" of Pastor Stoecker, unfortunately far more successfully than in Germany.

A leading anti-Semitic paper, published at St. Petersburg, frankly declares:

"No Russian can take the part of the Jews unless he is an enemy of the autocratic Russian throne. None but the blind can doubt that this vital question confronts Russia to-day. Indeed, all the liberals of our educated classes, in all circles, from the liberal officials up to the press, are plainly and decidedly on the side of the Jews, that is, all those Russians are on their side who strive for the abolishment of the power of the Orthodox Church and autocracy."*

To bring confusion into the ranks of the adversaries of autocracy, to deceive a portion of them by representing that autocracy advocates the interests of the Russian "people" against "Jewish capital," to demoralize the others by exciting the instincts of selfishness of a "predominant nation," and consequently to break up the spirit of liberal and radical opposition by creating a strong "national" party among the educated classes, in sympathy with the government—such is the other object of the present "national" policy of the autocracy. This is clear in the case of the decree of 1887 practically keeping Jews out of the public schools and universities. The latter were always the hot bed of opposition in Russia. Now, by denying Jewish students the right to fellowships, better conditions are created for their Russian colleagues. Thus the material interests of the Russian students have been connected with the existing political system, and to some extent a "national" feeling has been aroused even among

* "*Grazhdanin*," June, 1889.

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the students, in opposition to the radical aspirations formerly universal among them. The government always feared the growth of education among the lower classes, as was openly confessed by the circular for 1887 of the minister of education, who pointed out that "children of drivers, waiters, and washerwomen" should not be admitted to higher studies. The number of high schools was always restricted and half of the candidates were always refused for "want of space," or for failure to pass examination. Of course, the parents of these unlucky boys were in strong opposition to the policy of restricting the right to public education. Now there is within the pale of Jewish settement no longer a "want of space," since the Jewish scholars, who used to form the majority, are not admitted at all; consequently there is no reason for discontent on the part of Christian parents who feel themselves protected by the Christian government of the Czar against "Jewish exploitation."

Of course, this "national" policy has no bearing upon the interests of the masses of the people. But in an autocratic monarchy, where the nobility and the middle class are the sole representatives of the so-called public opinion of the nation, this is of little consequence. As to the peasantry and the working class, who are kept in ignorance, the Jews are pointed out to them as the only cause of all evil in Russia, and the current of discontent among the impoverished and toiling masses is turned against the "sheeny" (*zhid*). While almost all the liberal papers and magazines have one by one been suppressed since 1889, the anti-Semitic press, forming now the prevailing part of current literature, and the official papers of the government,* have made it their special purpose to excite the feelings of race-hatred and intolerance, which would have seemed some fifteen years ago buried in the darkness of the times of Torquemada.†

The standard of the anti-Semitic press is such that even in the famous case of a Jewish child who was maimed by an anti-Semite, it was not ashamed to take the part of the latter. I

* "*Warszawsky Dnievnik*" (Warsaw Daily); "*Wilensky Viestnik*" (Wilno Messenger), etc.

† "*Nabludatel*" (monthly), May, 1891; "*Moskovskiy Listok*" (daily), No. 127, 1891.

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wish to recall this case to my readers. A small Jewish boy named Rutenberg was caught picking up strawberries in a garden in Bialystok, by the owner of the garden, Dr. Granowsky. The physician first locked up the boy in a closet, then he imprinted on the lad's forehead the word "thief," in Russian, German, and Jewish, burning the characters into the skin by means of caustic. As the news spread through the city, a dense throng of Jews, indignant at the barbarous treatment of a child, assembled before the doctor's house, but was dispersed by the police. In the mean time false rumors were spread by the doctor that his little daughter had been murdered by the Jews, and steps were taken by him to excite the railroad workingmen to an anti-Jewish riot, fortunately without effect. The attitude taken in the case by the government was of great significance. Was the doctor tried and condemned according to the law? Quite the reverse. But Rabbi Marcus and Dr. Chasanovitch, the representatives of the Jewish community who made an attempt to prosecute the physician, were exiled from the city by order of the governor-general of Wilno, for exciting disorder and disturbing the peace.* The same governor-general, in an address to the aldermen of Wilno, threatened the Jews with "severe punishment without trial," and the same threat has been repeatedly expressed in recent decrees of the chief of police of Odessa and of the governor of Mohilev, charging the Jews in vague, yet sharp terms, with general depravity and corruption. The wickedness of the Jews is manifested, in the opinion of the above-named dignitaries of the state, by disturbing order, by crowding the streets and sidewalks, as well as by disrespect toward superiors, which means failure to remove their hats on meeting officials. The end aimed at by these declarations is openly to put the Jews in the position of a lower, despised caste, that can be insulted with impunity by any one belonging to the "predominant nation." The brazenfacedness of the persecutors culminates in a kind of voluptuousness of cruelty when we find a district attorney declaring to a Jewish delegation: "We shall flay you in the market without any more ado!" or a marshal of nobility as-

* "*Sudebnaya Gazeta*," No. 5, 1891.

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serting that for such purpose, "the most honorable members of the Jewish community will be chosen to set an example." *

A press despatch of June 29th, to the effect that "serious anti-Semitic riots have occurred near Kherson," came as if on purpose to show the influence produced by similar official utterances upon the minds of the ignorant masses. The bulk of the "genuine Russian people" are brought up in the spirit of "know-nothingism" hostile to every stranger. The same "national" policy as applied to Jews, although without the spirit of cruelty manifested toward the Jews, is pursued against the Baltic Germans, against Poland, and recently against Finland.

Thus it appears clear that the persecution of the Jews is a constitutent part of a calculated and well-planned scheme on the side of the government. By instigating the Ests and Lettonians against the Baltic Germans, the latter and the Poles against the Jews, and the orthodox Russian "nation" against all, the government intends to put one half of the population of the empire—the orthodox Russians—in the position of a "predominating nation" prevailing over all the rest through their all-powerful national autocratic government. "*Divide et impera!*"

ISAAC A. HOURWITCH.

* These declarations were made by Prince Meshchersky, marshal of nobility, and Mr. Sushkov, district attorney of Mstislavl, province of Mohilev. ("*Niedielnaya Chronika Voskhoda*," No. 27, 1890.)

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REFUGE FOR RUSSIAN JEWS.

I SHOULD gladly grant the request of the editor of the FORUM to write at length my views on the present situation and the probable future of those Jews who live under political disabilities in European states, if I did not fear that through activity as a publicist I might be taken from my chief occupation of philanthropy, and that if I should devote myself to the former occupation, it would be at the expense and to the detriment of the latter.

Besides, to take up the subject thoroughly one would have to write an historical study of the settlement and spread of the Jews in the several European states, and to collect statistical data of their numbers, for which tasks my occupation allows me no time, and it would be to no purpose, since all such information is accessible in statistical works. I refer, besides, to the two articles that M. Leroy-Beaulieu has recently published in the "*Revue des Deux Mondes*."

But I took occasion lately to express my views with regard to this question in the following statement, published through Reuter's agency, which explains in particular my plans with regard to the sad condition of the Russian Jews:

"The measures now being enforced against the Jews, which are equivalent to the wholesale expulsion of the race, do not appear to me to be altogether a misfortune for the Russian Jews. I think that the worst thing that could happen to these unfortunate people would be to continue, for an indefinite period, the wretched existence which they have led up to the present time, crowded together in narrow streets, merely vegetating without hope and without a future, reduced to a condition incompatible with the dignity of human beings. The only means to raise their condition is to remove them from the soil to which they are rooted and to transport them to other countries, where they will enjoy the same rights as the people among whom they live, and where they will cease to be pariahs, and become citizens. What is going on in Russia to-day may be the prelude to this beneficent transformation, and this is why, while I am filled with horror at the atrocities that are being committed, I hope to find a possi-

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bility of deriving from them some advantage for the unfortunate victims of oppression, and of facilitating their expatriation, which is their only means of salvation. It is true that the Jews have lived and labored for ages under the Russian empire, and that they have consequently acquired an incontestable right to the soil on which they live. But all this is a matter of pure theory which avails nothing against fact or against the indomitable will of a government like that of Russia, which is persuaded that Jews ought not to be tolerated within the limits of the empire, and that their presence is literally a desecration of the country. There exists among Russian statesmen a rooted conviction to that effect, not merely arising from antipathies due to race, but based, at the same time, on religious belief. A proof that such is the case is furnished by the fact that dissenters from the Orthodox faith are liable to measures which, if less violent than those applied to the Jews, are analogous to them in form.

"In the presence of this principle of exclusiveness transformed into a dogma I am of the opinion that all endeavors to moderate the resolutions of the government must inevitably fail, and, I repeat, I consider the necessity in which the Jews in Russia are placed, of leaving a country where they are subject to such treatment, as not an unmixed misfortune. But the treatment to which the Jews are now being subjected is such as to excite the indignant reprobation of the entire civilized world. The facts that have been recorded by the most trustworthy witnesses recall to mind the most terrible episodes in history, and should be branded as an outrage upon all feelings of humanity. People against whom there was not the shadow of reproach, who went about their business quietly, have been aroused from their beds at night, driven with whips from their dwellings, loaded with chains, and plunged into the deepest misery. Women, young girls, and children have been subjected to outrages such as I should have refused to believe possible, were they not attested by absolutely trustworthy witnesses, whose statements I do not even venture to reproduce. Hundreds of families, expelled from their homes and deprived of any kind of shelter, have been compelled to wander for days and nights in cemeteries, suffering from hunger, and exposed to all the inclemency of the climate. Women have brought forth children in the open fields, and have died from exposure. These barbarous doings may more fitly be called a terrible misfortune for the Jews than the principle of expulsion which the Russian government has decided to enforce against them. Their expulsion is unjust; still, I accept it as an accomplished fact; but the needlessly cruel manner in which it has been carried out is a dishonor to the age in which we live.

"But admitting that the principle of expulsion is irrevocable, I perceive a means—indeed, two ways—of alleviating the miserable lot of the Russian Jews. The first is to make the Czar acquainted with the truth respecting the cruelties that are perpetrated in his country and in his name. I am convinced that it would not be in vain to appeal to the sentiments of justice, humanity, and mercy of the sovereign who occupies the throne of Russia, and who is assuredly unaware of the acts of persecution committed under

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the shield of his authority upon a section of his subjects. If His Majesty could be made fully aware of what is going on, I am certain he would not hesitate to put a stop to such barbarity, and that, while maintaining the principle that inspires the policy of his government in regard to the Jews, he would give the necessary orders for the application of this policy in a humane, gradual, and moderate manner.

"This brings me to the second means—the establishment of a certain degree of order and method in the expatriation of Jews from Russia. The government of the Czar means to get rid of five millions of Jews who inhabit Russian territory. Let it allow the many who, like myself, are interested in the fate of these victims of persecution, and who will certainly be prepared to make the greatest sacrifices on their behalf, to save them. Without such help it would be impossible for the government to get rid of five millions of Jews except by slaughtering them in a mass. The Jewish nation has often been compelled to emigrate; let those of the Children of Israel who dwell in Russia bow to the same destiny, but let us be allowed time to look about to seek new homes for them in other regions. Perhaps the Czar, who combines with his religious zeal a sincere spirit of integrity and justice, will himself take the initiative in granting the Jews the time they require to leave Russia by degrees, quietly, and in good order. Let a period of twenty years, let us say, be fixed; let it be agreed that every year a certain number of Jews will leave the country; but let them be left in peace until the hour of their departure arrives. If the Czar will order a measure of this character to be adopted, those who are interested in the fate of the Russian Jews will do what is necessary to provide funds for conveying to their new country the number of emigrants ordered to leave yearly. By this means it will be possible to carry out, without any great hardship and with a minimum of suffering for those concerned, the principle of expulsion decided upon by the Russian government.

"I am under no delusion. I have no hope that the expression of my ideas will reach the eye of the Czar. But possibly these explanations may find favor with the supreme Russian authorities, and they may take upon themselves to submit to their sovereign the necessary measures for carrying them into effect. The entire civilized world, and above all the poor persecuted beings in whose behalf I speak, will render homage to the generosity of the Czar, if he will, by the exercise of his imperial will, put a stop to the acts of the lower officials who abuse the powers placed in their hands for the purpose of misinterpreting his intentions, and if he will enact that the edict of exile against several millions of his subjects shall cease to be, practically, the condemnation of an entire nation to pitiless persecution, misery, and death."

"Last year I sent a commission to the Argentine Republic to prosecute an investigation as to the practicability of my scheme. Some members of the commission came back this year to report, and the information they brought me was so far satisfactory that I have sent them out again with instructions to purchase land. This is being done now, but nothing is

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ready for the reception of emigrants. When the proper time comes, I shall appoint committees at Hamburg and other towns to receive, inquire into, and accept applications from destitute Jews, after which a free passage to their new homes will be provided for the successful applicants. I do not intend to make the mistake of crowding the colonists together at once in one place. I shall divide the land into plots, sections, and villages, and have everything ready for the emigrants before they are sent out. In each village I shall place a number of earlier Jewish colonists, whose prosperity and experience will encourage, aid, and stimulate the new-comers."

I may speak, however, with regard to the question of the present condition of one portion of the European Jews, namely, those who live under special laws, and whose fate, especially since it has taken such a hard line in Russia, excites the pity not only of the co-religionists of these unfortunates, but also of all friends of humanity. To do justice to this subject and to go to the bottom of it, one must strive to avoid the error of putting all classes of the Jewish population into one category, for under such treatment the enormous majority would suffer; namely, the *poor*.

Let us give these for once the first place, which in real life they never have. These great masses of poor Jews are the eternal prototype of martyrdom, of suffering, of persecution. Without law or protection they have been wandering on their thorny path like Pariahs of human society for centuries, bent under the double weight of their heavy burden and of universal contempt. People cast at them the reproach that they are not productive forces of society, but devote themselves only to trade, which brings quick profits. Granted that it is so; could it be otherwise when they have for centuries been denied every occupation of a good citizen—especially the tilling of the soil; shut out of honorable employment and so forced, if they did not wish to starve, always to seek some way to earn bread for themselves and their families? If in this way this power and this fertility of resource have been evolved in them at the cost of other qualities, I believe that no one has the right to reproach them for it.

It is easy, however, to give a refutation of this charge. Where the Jews are free from these shackling fetters, there their best powers have turned to scientific investigation, to art, and to poetry. The names of Disraeli, Mendelssohn, Halévy, Meyerbeer, Heine, to which can be added a long list of others, suffi-

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ciently illustrate this assertion. It is also a universally known and acknowledged fact that the medical profession has received its best recruits from the Jews, and that the most eminent physicians of Europe belong to this race. Where they hold professors' chairs in universities, it is chiefly the abstract branches of knowledge that they impart; and the scientific spirit of research belongs, above all, to them.

Among the great masses who must toil for their daily bread, certainly many have not yet devoted themselves to tilling the soil, and on this account their enemies have devised the charge that Jews are of no use in agriculture, that they are averse to all hard work. Here also experience gives a refutation. In the lands where Jews have been permitted to acquire landed property, where they have found opportunity to devote themselves to agriculture, they have proved themselves excellent farmers.

For example, in Hungary they form a very large part of the tillers of the soil, and this fact is acknowledged to such an extent that the high Catholic clergy in Hungary almost exclusively have Jews as tenants on mortmain properties, and almost all large landholders give preference to the Jews on account of their industry, their rectitude, and their dexterity. These are facts that cannot be hid, and that have force, so that the anti-Semitic movement, which for a long time flourished in Hungary, must expire. It will expire because every one sees that so important a factor in the productive activity of the country—especially in agriculture—cannot be spared. My own personal experience, too, has led me to recognize that the Jews have very good ability in agriculture. I have seen this personally in the Jewish agricultural colonies of Turkey, and the reports from the expedition that I have sent to the Argentine Republic plainly show the same fact.

These convictions led me to my activity to better the unhappy lot of the poor down-trodden Jews, and my efforts shall show that the Jews have not lost the agricultural qualities that their forefathers possessed. I shall try to make for them a new home in different lands, where as free farmers, on their own soil, they can make themselves useful to the country. If this should not come to pass among the present generation, the next will

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surely fulfil this expectation. But to return to the point—all the facts cited lead plainly to the conclusion that the Jews possess the necessary qualifications not only for science and art but also for agriculture, and that the charges made against them are in great part founded on an error.

I do not know how the state of feeling is in this respect among you in America—that is, what the deportment of the wealthy Jewish population is toward the Christians and *vice versa;* whether there also the Jews who are rising in the world meet with a certain friction and exclusiveness in social intercourse. I know nothing of the situation, yet it seems to me that in free America, where the whole social organization is of recent date, where only modern views can take root, anti-Semitic feeling would be a veritable anachronism.

But the European situation I know from my own observation. Here also, I think, anti-Semitic feeling, directed especially toward the rich, must disappear in some years, and indeed, "*faute de combattants*," as the French say.

This question is of such great importance that it should not be without interest to go into it more closely, and I must enter a little into detail about it that I may make myself understood. Let us, for this purpose, divide the Jewish people into three groups—the poor, the middle class, and the rich. The poor are usually only mocked at, and can therefore not become objects of envy; the middle classes have not risen so high that they attract the attention of those above them or excite jealousy; the third group, then, alone remains, namely, the rich, who in the last half of this century have amassed not millions, but billions, and have excited special envy because at the same time with their rise in material prosperity others, once the only social leaders of the feudal classes, instead of going forward have gone backward and —without thinking of their own deficiencies—have treated the wealthy Jews as the cause of their fall. Besides, the luxury that comes with wealth, as if of necessity, and the expenditure consequent upon it, excite universal notice and envy. Even the riches of this class are cast in their teeth, without consideration that through their spirit of enterprise, through their admirable knowledge of business, they have enriched the

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lands in which they live, and increased the national welfare. It is they who are especially to be thanked for the construction of railways, the setting on foot of great industries and the like, that have aided the states concerned to attain greater prosperity. Wealth has its obligations as well as its privileges. No class has ever been more ready to recognize and discharge those obligations than the Jews, who, in all countries where they have amassed sufficient property to free themselves from absolute want, have been foremost in works of philanthropy, irrespective of creed or race. If that enterprise, energy, and ability, which they possess in a large degree, be a cause of prejudice, then the fault lies at the door of our civilization, rather than at that of the Jewish race. The careful student of our civilization will recognize that the material development which characterizes the nineteenth century has redounded largely to the benefit of the lower classes, and has placed them, in all enlightened countries, in the possession of many comforts of life which in past ages were the monopoly of the favored few.

M. DE HIRSCH.

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IMMIGRATION AND DEGRADATION.

To me, as a student of the American census, the statistics of the foreign elements of our population have had a peculiar interest. To note the first appearance, in the web of our national life, of these many-colored threads; to watch the patterns which they formed as they grew in numbers during the successive stages of our development, was always a fascinating study. But, curious and even instructive as are inquiries into the varying aptitudes, as to residence and occupation, manifested by the several foreign nationalities represented among us, or into their varying liabilities to different forms of disease, of physical infirmity, or of criminal impulse, I shall confine myself in this paper to speaking of the influence exerted by our foreign arrivals upon the native population in the past, and to considerations arising upon the contemplation of the overwhelming immigration of the present time.

False and absurd as are many of the views prevalent in the old world regarding things American, there is no other particular in which European opinion has been so grotesquely in the wrong, as in respect to the indebtedness of the population of the United States to continuous immigration from abroad. Conclusions have been announced and unhesitatingly accepted in Europe, and, indeed, copied and repeated long without contradiction here, which are of the most astonishing character, in the highest degree derogatory to the vitality of our native American stock, and to the sanitary influences of our climate. Thus, Mr. Clibborne, in a paper entitled "The Tendency of the European Races to Become Extinct in the United States," read before the British Association for the Advancement of Science, in 1856, stated the following stupendous result of his investigation:

"From the general unfitness of the climate to the European constitution, coupled with occasional pestilential visitations which occur in the healthier localities, on the whole in an average of three or four generations,

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extinction of the European races in North America would be almost certain, if the communication with Europe were entirely cut off."

In speaking of entirely cutting off communication with Europe Mr. Clibborne did not, could not, mean such a painful severance of relations as would deny the American people the privilege of studying their own character and manners in the discriminating, dispassionate, yet genial narratives and essays of a Mrs. Trollope or a Lepel Griffin; but only such restriction of intercourse as would put a stop to Europeans coming hither, as seals resort to the Alaskan islands, to deposit their young, the proper fruit of more benignant climes. Were this constantly renewed supply of fresh blood from other lands cut off, Mr. Clibborne declared, the white race on this continent would soon become extinct.

With the readiness so characteristic of Europeans to swallow any opinion or statement of fact regarding Americans, provided only it be sufficiently disparaging, it is not to be wondered at that an Englishman should have been found to announce such a result; and that millions of Englishmen, Frenchmen, and Germans should have been found to believe and to repeat it; but unfortunately similar conclusions were at about the same time promulgated by two persons resident in the United States, assuming the air, at least, of careful sociological investigators. In the same year that Mr. Clibborne's paper was read, Mr. Louis Schade, of Washington, put forward some elaborate statistical computations to establish the proposition that the rate of natural increase in the descendants of the original population of the United States, in 1790, had, by that time, been reduced to 1.38 per cent. per annum. Vastly the greater part of the mighty increase which had raised the four millions of 1790 to the twenty-eight millions of 1856, Mr. Schade attributed to the fecundity of the immigrants into the country subsequent to 1790. I trust that it is not below the dignity of this magazine to allow me to say that Mr. Schade's elaborate demonstration of the decay of reproductive vigor among the elder population of the United States was simply bosh. Blunder had been piled upon blunder to reach this Olympian height of absurdity. Yet so lacking was this country in trained statisticians competent to deal with

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such a piece of charlatanry, that Mr. Schade's conclusions remained unchallenged at home, and were widely circulated abroad, to the confusion of all good Americans.

In 1870 Mr. Frederic Kapp, a scholar and a man of some pretensions to statesmanship, read a paper before the American Social Science Association, in which he warmly supported Mr. Schade's views, giving that person much credit for his original and penetrating methods of statistical analysis. Original they certainly were. Mr. Kapp proceeded, by methods entitled to equal praise on the same account, to complete the work in this field, reaching the conclusion that, of the population of 1850, but 36 per cent., and of the population of 1860, but 29 per cent. were American, in the sense of being derived from the inhabitants of 1790, all the vast remainder consisting of the survivors or the descendants of immigrants since that date.

By this time it was not so easy or safe an exploit to pluck the feathers of the American eagle. Statistics had begun to be cultivated in a small way here; and Kapp's performance called forth a reply from the late Dr. Edward Jarvis, the first president of the American Statistical Association. Dr. Jarvis's paper will be found in the "Atlantic Monthly" for 1872. In it he completely demolished the flimsy structures which Schade and Kapp had reared. Time will not serve to follow Dr. Jarvis's exposure of the successive statistical blunders which had allowed conclusions so disparaging to the vitality of our people. Two instances will suffice. Mr. Schade had confounded the number of children surviving at the end of a year with the number of children born during the year; the fact being that from 109 to 115 or more children (according to the conditions of infant life prevailing in the community) must be born during a year, in order that 100 shall survive at the end of it. Mr. Kapp, on his part, had to his own satisfaction established a natural increase of the foreigners supposed, in the absence of exact data, to have arrived in the country between 1790 and 1800, which would have required every female among them to bear 18.07 children each year, to satisfy the requirements of the assumption. Dr. Jarvis reached the conclusion that of the population of 1850, more than 80 per cent., and of the population

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of 1860, more than 71 per cent., were American in the sense given to that word by Mr. Kapp, instead of only 36 and 29 per cent. respectively, according to the deductions of that writer.

Now, it is to be freely admitted that between 1850 and 1870 the rate of increase in the pre-existing population of this country fell sharply off; and that between 1870 and 1890 that decline has gone on at an accelerated ratio. From the first appearance of foreigners in large numbers in the United States the rate of increase among them has been greater than among those whom they found here; and this disproportion has tended continually, ever since, to increase. But has this result been due to a decline in physical vitality and reproductive vigor in that part of the population which we call, by comparison, American, or has it been due to other causes, *perhaps to the appearance of the foreigners themselves?* This is a question which requires us to go back to the beginning of the nation. The population of 1790 may be considered to have been, in a high sense, American. It is true that (leaving the Africans out of account) it was all of European stock; but immigration had practically ceased on the outbreak of the Revolution, in 1775, and had not been renewed, to any important extent, at the occurrence of the first census; so that the population of that date was an acclimated, and almost wholly a native population. Now, from 1790 to 1800, the population of the United States increased 35.10 per cent., or at a rate which would have enabled population to be doubled in twenty-three years; a rate transcending that maintained, so far as is known, over any extensive region for any considerable period of human history. And during this time the foreign arrivals were insignificant, being estimated at only 50,000 for the decade. Again, from 1800 to 1810, population increased by 36.38 per cent. Still the foreign arrivals were few, being estimated at only 70,000 for the ten years. Again, between 1810 and 1820 the rate of increase was 33.07 per cent., and still immigration remained at a minimum, the arrivals during the decade being estimated at 114,000. Meanwhile the population had increased from 3,929,214 to 9,633,822.

I have thus far spoken of the foreign arrivals at our ports, as estimated. Beginning with 1820, however, we have custom-

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house statistics of the numbers of persons annually landing upon our shores. Some of these, indeed, did not remain here; yet rudely speaking we may call them all immigrants. Between 1820 and 1830, population grew to 12,866,020. The number of foreigners arriving in the ten years was 151,000. Here, then, we have for forty years an increase, substantially all out of the loins of the four millions of our own people living in 1790, amounting to almost nine millions, or 227 per cent. Such a rate of increase was never known before or since, among any considerable population, over any extensive region.

About this time, however, we reach a turning point in the history of our population. In the decade 1830–40 the number of foreign arrivals greatly increased. Immigration had not, indeed, reached the enormous dimensions of these later days. Yet, during the decade in question, the foreigners coming to the United States were almost exactly fourfold those coming in the decade preceding, or 599,000. The question now of vital importance is this: Was the population of the country correspondingly increased? I answer, No! The population of 1840 was almost exactly what by computation it would have been had no increase in foreign arrivals taken place. Again, between 1840 and 1850, a still further access of foreigners occurred, this time of enormous dimensions, the arrivals of the decade amounting to not less than 1,713,000. Of this gigantic total, 1,048,000 were from the British Isles, the Irish famine of 1846–47 having driven hundreds of thousands of miserable peasants to seek food upon our shores. Again we ask, Did this excess constitute a net gain to the population of the country? Again the answer is, No! Population showed no increase over the proportions established before immigration set in like a flood. In other words, as the foreigners began to come in larger numbers, the native population more and more withheld their own increase.

Now, this correspondence might be accounted for in three different ways: (1) It might be said that it was a mere coincidence, no relation of cause and effect existing between the two phenomena. (2) It might be said that the foreigners came because the native population was relatively declining, that is, failing to keep up its pristine rate of increase. (3) It might be said

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that the growth of the native population was checked by the incoming of the foreign elements in such large numbers.

The view that the correspondence referred to was a mere coincidence, purely accidental in origin, is perhaps that most commonly taken. If this be the true explanation, the coincidence is a most remarkable one. In the June number of this magazine, I cited the predictions as to the future population of the country, made by Elkanah Watson, on the basis of the censuses of 1790, 1800, and 1810, while immigration still remained at a minimum. Now let us place together the actual census figures for 1840 and 1850, Watson's estimates for those years, and the foreign arrivals during the preceding decade:

	1840.	1850.
The census,.....	17,069,453	23,191,876
Watson's estimates,.....	17,116,526	23,185,368
The difference,.....	−47,073	+6,508
Foreign arrivals during preceding decade,.....	599,000	1,713,000

Here we see that, in spite of the arrival of 599,000 foreigners during the period 1830–40, four times as many as had arrived during any preceding decade, the figures of the census coincided closely with the estimate of Watson, based on the growth of population in the pre-immigration era, falling short of it by only 47,073 in a total of 17,000,000; while in 1850 the actual population, in spite of the arrival of 1,713,000 more immigrants, exceeded Watson's estimates by only 6,508 in a total of 23,000,000. Surely, if this correspondence between the increase of the foreign element and the relative decline of the native element is a mere coincidence, it is one of the most astonishing in human history. The actuarial degree of improbability as to a coincidence so close, over a range so vast, I will not undertake to compute.

If, on the other hand, it be alleged that the relation of cause and effect existed between the two phenomena, this might be put in two widely different ways: either that the foreigners came in increasing numbers because the native element was relatively declining, or that the native element failed to maintain its previous rate of increase because the foreigners came in such swarms. What shall we say of the former of these explanations? Does anything more need to be said than that

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it is too fine to be the real explanation of a big human fact like this we are considering? To assume that at such a distance in space, in the then state of news-communication and ocean-transportation, and in spite of the ignorance and extreme poverty of the peasantries of Europe from which the immigrants were then generally drawn, there was so exact a degree of knowledge, not only of the fact that the native element here was not keeping up its rate of increase, but also of the precise ratio of that decline, as to enable those peasantries, with or without a mutual understanding, to supply just the numbers necessary to bring our population up to its due proportions, would be little less than laughable. To-day, with quick passages, cheap freights, and ocean cables, there is not a single wholesale trade in the world carried on with this degree of knowledge, or attaining anything like this point of precision in results.

The true explanation of the remarkable fact we are considering I believe to be the last of the three suggested. The access of foreigners, at the time and under the circumstances, constituted a shock to the principle of population among the native element. That principle is always acutely sensitive alike to sentimental and to economic conditions. And it is to be noted, in passing, that not only did the decline in the native element, as a whole, take place in singular correspondence with the excess of foreign arrivals, but it occurred chiefly in just those regions to which the new-comers most freely resorted.

But what possible reason can be suggested why the incoming of the foreigner should have checked the disposition of the native toward the increase of population at the traditional rate? I answer that the best of good reasons can be assigned. Throughout the north-eastern and northern middle States, into which, during the period under consideration, the new-comers poured in such numbers, the standard of material living, of general intelligence, of social decency, had been singularly high. Life, even at its hardest, had always had its luxuries; the babe had been a thing of beauty, to be delicately nurtured and proudly exhibited; the growing child had been decently dressed, at least for school and church; the house had been kept in order, at whatever cost, the gate hung, the shutters in place, while the

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front yard had been made to bloom with simple flowers; the village church, the public school-house, had been the best which the community, with great exertions and sacrifices, could erect and maintain. Then came the foreigner, making his way into the little village, bringing—small blame to him!—not only a vastly lower standard of living, but too often an actual present incapacity even to understand the refinements of life and thought in the community in which he sought a home. Our people had to look upon houses that were mere shells for human habitations, the gate unhung, the shutters flapping or falling, green pools in the yard, babes and young children rolling about half naked or worse, neglected, dirty, unkempt. Was there not in this, sentimental reason strong enough to give a shock to the principle of population? But there was, besides, an economic reason for a check to the native increase. The American shrank from the industrial competition thus thrust upon him. He was unwilling himself to engage in the lowest kind of day labor with these new elements of the population; he was even more unwilling to bring sons and daughters into the world to enter into that competition. For the first time in our history the people of the free States became divided into classes. Those classes were natives and foreigners. Politically the distinction had only a certain force, which yielded more or less readily under partisan pressure, but socially and industrially that distinction has been a tremendous power, and its chief effects have been wrought upon population. Neither the social companionship nor the industrial competition of the foreigner has, broadly speaking, been welcome to the native.

It hardly needs to be said that the foregoing descriptions are not intended to apply to all of the vast body of immigrants during this period. Thousands came over from good homes; many had had all the advantages of education and culture; some possessed the highest qualities of manhood and citizenship.

But let us proceed with the census. By 1860 the causes operating to reduce the growth of the native element, to which had then manifestly been added the force of important changes in the manner of living, the introduction of more luxurious habits, the influence of city life, and the custom of "boarding," had reached

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such a height as, in spite of a still-increasing immigration, to bring the population of the country 310,503 below the estimate. The fearful losses of the civil war and the rapid extension of habits unfavorable to increase of numbers, make any further use of Watson's computations uninstructive, yet still the great fact protrudes through all the subsequent history of our population that the more rapidly foreigners came into the United States, the smaller was the rate of increase, not merely among the native population separately, but throughout the population of the country, as a whole, including the foreigners. The climax of this movement was reached when, during the decade 1880–90, the foreign arrivals rose to the monstrous total of five and a quarter millions (twice what had ever before been known); while yet population, even including this enormous re-enforcement, increased more slowly than in any other period of our history, except, possibly, that of the great civil war.

If the foregoing views are true, or contain any considerable degree of truth, foreign immigration into this country has, from the time it first assumed large proportions, amounted not to a re-enforcement of our population, but to a replacement of native by foreign stock. That if the foreigners had not come, the native element would long have filled the places the foreigners usurped, I entertain not a doubt. The competency of the American stock to do this it would be absurd to question in the face of such a record as that for 1790 to 1830. During the period from 1830 to 1860 the material conditions of existence in this country were continually becoming more and more favorable to the increase of population from domestic sources. The old man-slaughtering medicine was being driven out of civilized communities; houses were becoming larger; the food and clothing of the people were becoming ampler and better. Nor was the cause which, about 1840 or 1850, began to retard the growth of population here, to be found in the climate which Mr. Clibborne stigmatizes so severely. The climate of the United States has been benign enough to enable us to take the English short-horn and greatly to improve it, as the re-exportation of that animal to England at monstrous prices abundantly proves; to take the English race-horse and to improve him to a degree of

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which the startling victories of Parole, Iroquois, and Foxhall afford but a suggestion; to take the English man and to improve him too, adding agility to his strength, making his eye keener and his hand steadier, so that in rowing, in riding, in shooting, and in boxing, the American of pure English stock is to-day the better animal. No! Whatever were the causes which checked the growth of the native population, they were neither physiological nor climatic. They were mainly social and economic; and chief among them was the access of vast hordes of foreign immigrants, bringing with them a standard of living at which our own people revolted.

Opinions may differ widely on the question whether the United States have, as a whole, gained or lost by so extensive a replacement of the native by foreign elements in our population. But whatever view may be taken of the past, no one surely can be enough of an optimist to contemplate without dread the fast rising flood of immigration now setting in upon our shores. During the past ten years, five and a quarter millions of foreigners entered the ports of the United States. We have no assurance that this number may not be doubled in the current decade. Only a small part of these new-comers can read, while the general intelligence of the mass is even below what might be assumed from such a statement. By far the greater part of them are wholly ignorant of our institutions, and, too often, having been brought up in an atmosphere of pure force, they have no sympathy with the political ideas and sentiments which underlie our social organization; often not even the capability of understanding them.

What has just now been said would, of course, have been true in some degree of the body of immigrants in any preceding period. But the immigration of the present time differs unfortunately from that of the past in two important respects. The first is, that the organization of the European railway and the ocean steamship service is now such as to reduce almost to a minimum the energy, courage, intelligence, and pecuniary means required for immigration; a result which is tending to bring to us no longer the more alert and enterprising members of their respective communities, but rather the unlucky, the

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thriftless, the worthless. The second characteristic of the immigration of the present, as contrasted with that of the past, is that it is increasingly drawn from the nations of southern and eastern Europe—peoples which have got no great good for themselves out of the race wars of centuries, and out of the unceasing struggle with the hard conditions of nature; peoples that have the least possible adaptation to our political institutions and social life, and that have thus far remained hopelessly upon the lowest plane of industrial life. So broad and straight now is the channel by which this immigration is being conducted to our shores, that there is no reason why every stagnant pool of European population, representing the utterest failures of civilization, the worst defeats in the struggle for existence, the lowest degradation of human nature, should not be completely drained off into the United States. So long as any difference of economic conditions remains in our favor, so long as the least reason appears for the miserable, the broken, the corrupt, the abject, to think that they might be better off here than there, if not in the workshop, then in the workhouse, these Huns, and Poles, and Bohemians, and Russian Jews, and South Italians will continue to come, and to come by millions.

Has not the full time arrived when the people of the United States should set themselves seriously to consider whether the indiscriminate hospitality which has thus far cheerfully been exercised, should not be, at least for a while, withheld, to give the nation opportunity to digest and to assimilate what it has already received; whether justice, if not to ourselves, then to our posterity, does not require that the nation's birthright shall no longer be recklessly squandered; whether we are not under obligations, as the inheritors of a noble political system, to "see to it that the Republic sustains no harm" from an invasion in comparison with which the invasions under which Rome fell were no more than a series of excursion parties? For one, I believe that the United States have, by a whole century of unrestricted hospitality, and especially by taking in five and a quarter millions of foreigners during the past ten years, fully earned the right to say to all the world, "Give us a rest."

FRANCIS A. WALKER.

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THE CHILIAN STRUGGLE FOR LIBERTY.

In 1886 Señor José Manuel Balmaceda, the present dictator of Chili, was elected president of the Republic for a term of five years. During the first two years of his government he followed the honorable traditions and practices of his predecessors, and his administration was regarded as satisfactory. It soon became apparent, however, that fraud and jobbery, until then unknown in Chilian administrations, were becoming every-day occurrences. It was also discovered that President Balmaceda had determined to designate his own successor. A well-filled treasury and the abundant revenues of the Republic proved too strong temptations for the man. He had obtained the highest gift which the nation could bestow; the Constitution did not permit his re-election and his political ambition was satisfied; his one ambition now was to enrich himself. The nitrate beds of Tarapaca, owned by the government, presented the most promising field for speculation. If a rich syndicate could be formed to buy these beds and if a large amount could be distributed among the promoters of the scheme, his ambition would be satisfied, for he intended to be the chief promoter. In order, however, successfully to carry out this project a Congress favorable to its promotion was necessary, as well as a successor who could be depended on. He could not find a fitter instrument for the consummation of his plan than his confidential agent and broker Señor Enrique Sanfuentes, a man without political experience and with a reputation acquired in questionable transactions.

The candidacy of Señor Sanfuentes now became the one object of his administration. The vast official patronage was made use of to favor this man, and honest officials were dismissed in order to make way for those pledged to support him. The President endeavored to divide the Liberal party in order that the adherents of Sanfuentes might hold the balance of power. His

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treachery and intrigues, however, were soon discovered, and the honest men of all parties united in an effort to put down this shameful intervention in electoral matters and to assure a free expression of the people's will in the designation of their candidates. An electoral bill, embodying the principles of the Australian ballot system, was introduced in Congress and passed both chambers; a municipal law, modelled after the New England town system, and calculated to give local independence to the districts, and to educate the people in the principles of self-government, received the almost unanimous support of both houses. Such measures, however, were distasteful to the President, as they were obstacles to his criminal purposes.

In the beginning of the year 1890, the President, ignoring the parliamentary institutions of Chili, as established by the Constitution and observed during 58 years by 19 Congresses and by all previous administrations, taking advantage of the congressional recess, suddenly and without giving any explanation replaced the parliamentary cabinet by one composed of his own creatures. This was an attack on national institutions, for Chilian cabinets are of the English type; the ministers are appointed by the President without confirmation by the Senate, and having seats in Congress depend on a parliamentary majority for their existence. In many other ways the President deliberately violated the Constitution, usurping powers which that instrument confers exclusively on Congress or upon the executive and Congress jointly. As soon as Congress met of its own right, in June 1890, both the Senate and the House, by overwhelming majorities, passed a vote of censure upon the Cabinet. The President, however, insisted on maintaining his ministry, claiming that henceforth he would observe the presidential rather than the parliamentary system of government. Congress, exercising a constitutional right, then refused to pass a bill authorizing the collection of taxes until the President should appoint a ministry of honest men. Public opinion was greatly aroused and the press of the whole country denounced the President's course. Disturbance of public order was imminent. Just then news came that the patriotic citizens of the Argentine Republic had deposed their tyrant, and Balmaceda, fearing a

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like fate, was obliged to yield until such a time as he should consider himself strong enough for a successful *coup d'état.* He therefore called on Judge Prats of the Supreme Court to form a ministry.

Congress expressed itself as satisfied and abstaining, in the interest of harmony, from impeaching the guilty ministers, passed the tax bills and other administrative measures. This calmed the public mind. The President, however, had not abandoned his criminal designs, and two months later he obliged the ministry of Judge Prats to resign. He now dissolved Congress, which had just assembled in extraordinary session to vote, among other measures, those authorizing public expenditures and fixing the strength of the military and naval contingent for 1891, and named another personal ministry.

The danger of a disturbance of public order now again became imminent; numerous and vehement representations were addressed to the executive by the leading citizens of Chili, by public corporations, and by the press of the country, urging him to respect the Constitution and the will of the people; but all was unavailing. The *Comision Conservadora*, a committee composed of seven senators and seven representatives elected by their respective chambers to act during the recess of Congress, repeatedly called on Balmaceda to summon Congress, but he turned a deaf ear to all patriotic appeals.

By his refusal to summon Congress he rendered it impossible to carry on the government legally; for the Constitution provides that "only by virtue of a law is it permissible to fix annually the strength of the naval and land forces, and to fix annually the expenses of public government." Señor Balmaceda, disregarding these explicit provisions of our fundamental charter, on the 1st of January last issued a manifesto in which he proclaimed himself dictator; declaring that he had been obliged to violate the Constitution and that he would continue to violate it. He furthermore proclaimed:

> "I count on the support of the army and navy, who know that I am their constitutional chief, and that they are essentially obedient forces that cannot deliberate."

It mattered not to him that our Constitution provides that no

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magistrate or department of the government can, even under the pretext of extraordinary circumstances, arrogate to himself or to itself other powers than those expressly conferred.

The acts of the President were declared illegal by the Supreme Court of Chili. Congress, in view of them, exercising a constitutional prerogative, deposed him and called upon the people to aid them in putting down the revolutionary government of the Dictator. From the day in which the President closed Congress—the 5th of October—he began active preparations for his *coup d'état.* The police force was everywhere increased; the officers of the army were obliged to pledge their unconditional support, and in case of refusal were dismissed or imprisoned. Public assemblies were broken up by his police, who shot down the citizens; men of the highest standing were imprisoned without cause; the right of public meeting was taken away. But the people, accustomed to the enjoyment of tranquillity under the rule of honest presidents, did not believe that Balmaceda would dare to trample under foot the Constitution which he had sworn to respect; they did not believe that he would be guilty of high treason to the state.

His courtiers, by their flattery, had led him to believe that he enjoyed great popularity and deluded him into thinking that a *coup d'état* would not be attended by any disastrous consequences to himself. He believed that Congress would formally protest, and that there might be some slight disturbance of order, which could afford him the excuse that he so eagerly desired for assuming all public power and for banishing the leading men of the opposition. He felt that the rich men who opposed him would never consent to take up arms against his revolutionary government, because they had so much to lose. He did not suspect that a citizen of Chili could love his country; he did not believe that a Chilian could hate tyranny and oppression, or love the constitution under which he had enjoyed the fullest measure of liberty. He seemed to think that personal interest and mercenary motives influenced all citizens as they influenced him.

The citizens of Chili, when called to the defence of their constitution, rallied to the support of Congress. The officers and men of the navy without exception offered their services.

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Unfortunately the Chilian soldier is uneducated, by nature brave, but docile and subservient. The enlisted men of the army were bribed into supporting the Dictator. They obeyed the orders of hireling officers and everywhere prevented the unarmed citizens from rising in support of Congress. Yet all the leading generals and a large majority of the officers of the regular army are to-day fighting for their country's cause in the army that supports Congress, though the Dictator at once trebled the salaries of his soldiers and offered bribes to those who would desert the congressional side.

As soon as the navy declared against him, the Dictator published a decree assuming all public authority, and suspended all laws which might embarrass the exercise of his power. He suspended the newspapers and destroyed the presses. The Supreme Court set at liberty citizens who had been illegally imprisoned, but he refused to obey its mandates. It then declared his acts illegal and unconstitutional, whereupon he closed all the courts.

The property of members of Congress and leading citizens was in many cases pillaged and destroyed; that of others was confiscated. Judges, senators, and representatives were imprisoned; ladies and gentlemen were subjected to torture and indignity. The London "Times," referring editorially to these atrocities, says:

> "He has shrunk from no severity and no brutality in dealing with the upholders of constitutional rights. It is impossible to ignore accusations formally made from many different quarters. There is a body of evidence to show that, whatever be the constitutional aspects of the quarrel, it has been fought on Balmaceda's part with absolute unscrupulousness and unflinching cruelty."

In order to give his government some semblance of legality he abrogated the electoral laws, and the members of Congress were declared to be no longer in the exercise of their legislative function, although they still held, by constitutional right, the charge confided to them by the electors. He then ordered elections to be held for a so-called constituent assembly in order to reform the Constitution, which nobody but himself had violated.

It is absurd to suppose that, in a country governed by martial law, with no courts and no press, a lawful election can be

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held. Our laws provide that the courts shall decide on the validity of elections. At the elections ordered by Balmaceda there was no opposition, consequently the candidates which he designated were unanimously chosen, as he claims. There is no better proof of the illegality of this Congress than that which its members have given by their abject servility to the tyrant. Its first act was to legalize the criminal acts of the Dictator, and to divest itself of all legislative attributes in order to clothe him with unlimited and irresponsible authority. This very condonation of the Dictator's acts is a virtual admission of their illegality. The bill passed provides that the President of the Republic shall be invested with the following extraordinary powers: "That of arresting, transporting, and banishing persons; that of extending the public revenue without being subject to estimates; that of declaring the territory of the Republic in a state of siege; that of suspending or limiting the right of meeting and the liberty of the press." Such a bill needs no comments.

Although struggling under great disadvantages, the party of Congress now holds the territory extending from the northern boundary of Chili to the 29th degree of south latitude. This territory comprises the four richest provinces, constituting one half the territory of the Republic, and yielding two thirds of the yearly revenue. There is a regularly established government in the form of a Junta composed of Don Waldo Silva, vice-president of the senate, Don R. Barros Luco, president of the chamber of deputies, and Don J. Montt, commander of the navy. This Junta has been organized since last April, and has a regular cabinet. From a military point of view the congressional government is certainly as strong as that of Balmaceda. It has a well-disciplined army and a navy that is vastly superior to that of the Dictator. Throughout the territory governed by Congress there is peace and tranquillity; the courts of law suppressed by order of the Dictator have been reinstated, and every citizen enjoys the fullest liberty. Under the Dictator's *régime* of brute force, on the contrary, there is outrage and persecution. The courts of law have been closed and there is a veritable reign of terror.

The government of the congressional party is an organization sufficiently regular and responsible to command the respect of

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foreigners as well as of Chilians. It maintains commercial relations with all the nations of the world. It holds in peaceful and undisputed possession one half the territory of Chili, yielding more than two thirds of the revenue of the whole country. The portion of Chili under congressional control, in virtue of its population, its resources, and the character of its government, is entitled to be considered a state, for it has demonstrated its ability to discharge the duties of one. Its government has the support of all Chilians of character and intelligence.

This government, then, possesses all the elements and conditions which international law deems necessary to a recognition of belligerency by foreign powers, and when these conditions exist, authorities on international law claim that "belligerency ought not only to be conceded, but ought not to be withheld." Besides, the Dictator has virtually recognized the belligerency of the congressional government by issuing a decree declaring the ports in its possession closed to foreign commerce. Our sister republic, Bolivia, some time ago recognized the belligerency of the congressional government.

The present revolution has very distinctly drawn the line between the honest and patriotic citizens who desire their country's good and those who, rather than to be thwarted in their schemes of personal enrichment, prefer their country's ruin. The patriotic citizens of Chili will make no compromises with those who have robbed their country of her peace and her good name; their task will not be ended until they shall have established constitutional government throughout the land and assured liberty to every citizen of the Republic.

RICARDO L. TRUMBULL.

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LITERATURE IN THE MARKET-PLACE.

THE recent wide and prolonged discussion of the question of copyright has thrust into great prominence the commercial motive in literature. It was a necessary incident of this agitation that authors should be represented chiefly as men in business, since the law affects them only as they offer books for sale. The ethical ground taken was that the laborer is worthy of his hire. Whether as a profession or as a trade, literature was regarded as a means of gain. All this is somewhat out of consonance with old traditions of the literary life. It is true that the noted saying that "the man who does not write for money is a fool" is more than a century old, and its promulgation by Dr. Johnson marked the beginning of new conditions in literary production; on the other hand the soon-cured reluctance of Byron to take pay for his poetry marked the end of the earlier feeling —the aristocratic prejudice, if you will—against making a trade of the nobler uses of great faculties in thought and imagination. But there still remains a middle ground between these two extremes, an ethics in the practice of literature, and it is probable that only a few authors of distinction in this century would admit that the pecuniary reward had much to do with their own writing. It has been argued that the widening of the market for books of American authors, by securing to them an equal chance with foreign authors in our own country and also remuneration for their sales abroad, would tend to increase the quantity of our production and to better the quality of popular reading. In other words the strengthening of the commercial motive, which is the practical change effected by the law, is relied upon to give an impulse to American literature. Without raising any question of the existence of a right of property in literature, certainly as just as many forms of private ownership, and without doubting the expediency of the rule that authors should live, as other social workers do, by pay for their service to the

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community, one may inquire whether the importance assigned to the financial aspect of the matter has not been exaggerated, and examine in general the influence of the trade spirit in literature with a view to its actual results. The law may be both just and wise, and yet its effects in the encouragement of literature may have been imperfectly forecast.

The copyright law, however, is referred to here only incidentally. It is proposed in this paper to glance at some conditions of the production of our current literature, which the law may aggravate or ameliorate but which exist independently of it. The commercial motive has long been acting on our literary producers. What are its effects? Do they show that writing for money is a practical method of creating literature that shall be an historic possession of the nation and a final depository of its renown, the lasting record of its higher civilization—that of the mind and the heart—age by age? Of such literature we have now but a minimum; can we look to the commercial motive to secure its production? It would be, perhaps, unfair to do more than recall the fact that great literatures hitherto have been little indebted to the desire for gain, and that nations and communities, distinguished by the spirit of trade, have been often conspicuously deficient in literary genius. Our civilization is a commercial one throughout the world to a degree which makes the present a new age. Money itself is more regarded, and its possession implies also the control of public and private opportunities, and the individual distinction even, which were once rather in the gift of rank and fame than of riches; and hence the commercial motive is of wider range and is, besides, freed appreciably from degrading associations. It may be that the change in general social conditions is so great and works in such complex ways, that past experience is an unsafe ground for inference. Copyright may yet rival patent-right in its results. It is, however, uncertain how far patent-right is to be credited with the progress of invention made possible by disinterested scientific discovery and made necessary by the growth of society without regard to who should receive the incidental profit. It is plain that thus far the hire of the laborer has been, to say the least, of mixed good and evil in literature.

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Mr. Walter Besant has lately given it as his opinion that Dr. Johnson, with whom the dependence of literature on the book-trade began, made a better living by his hack-work than he would have gained in any other profession. Really large returns were not obtained from the book-sellers until the next generation. Sir Walter Scott received considerable sums, and he wrote his novels with these in view. He is a conspicuous example of a man who sought money without contracting any sordidness in his moral habit. Byron is the other instance of striking pecuniary success in that generation. Many other authors, who did not make fortunes, were well paid in the same period, and as the century advanced the writing of fiction in particular became one of the roads to a competency or even to comparative wealth. It remains, nevertheless, generally true that the literary career in the strict sense is still an unprofitable one, involving much self-denial in its earlier years and a success, if success be won, often long deferred. The two great poets of the age, Tennyson and Browning, are illustrative cases. Carlyle, in prose, is another example. It is not likely that any of the really great authors of the century, from Sir Walter Scott on, would have failed to write their works, though all these had been as unsalable as those of Wordsworth, Shelley, or Hawthorne. They were men of genius to whom expression was a necessity of their nature. The commercial motive was not a governing one in their lives, and, except in the making of fiction, was little felt. Sir Walter, Thackeray and Dickens, and George Eliot stand in the position, as regards this matter, of Shakespeare; whether he wrote for money will always be a mooted question, but the possession of genius implies its exercise, and it is rational to think that the great English story-tellers, both in drama and romance, would have told their tale of life just as those of ancient and mediæval times did before them, whether their purses were filled or left empty. The money value of fiction at present supplies a strong external motive, and each decade now is strewn with reputations of failure in consequence. The internal impulse must first exist if greatness is to be achieved, and is of itself enough. Victor Hugo made a fortune, but the fortune had no hand in making him; day and

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night are the same to the volcano—it is irrepressible; with or without wages he would have done his work, like Cervantes.

It is well to insist on the lack of any necessary relation between the great works of literature and the money they may or may not earn for their authors, for the point is a cardinal one in any forecast of our own national fortune in letters. It serves in this place to mark off the limit within which the commercial motive does operate with some mastery over the result. The new thing in literary conditions in this century is the rise and increase of the reading public, infinitely varied in what it seeks and vast in its numbers, but not widely sensitive to pure literature. The whole mass of books which aim to spread information, all the ever-multiplying series of scientific works, literary biographies, history manuals, collections of standard authors of the past, selected poetry and prose, the exhaustless library of travel—in a word, the literature of knowledge for the people—all this, broadly speaking, is produced for a price. The demand is an opportunity for publishers and writers to make money, and the supply follows the demand. The commercial motive in this region often blends with an enlightened desire among the educated class to spread knowledge for its own sake as an element of civilization. Nevertheless, it is a market that is stocked in the process for value received. The literature of popular knowledge, however, is strictly limited in its character; it must be, so far as it goes, the same for the lowest as for the highest intellect, and one with the truth as it has been written by the best authority. There is no opportunity for any sinister influence, except so far as incompetent writers may be employed for the sake of cheapness, and this seldom occurs.

The case is wholly different when the literature of popular amusement is approached. Here the observer comes at once upon that numerous body of readers which has been named the Unknown Public; it lies outside of the ordinary literary field and is as strange to reputed men of letters as their works are to it. It is not an uncommon experience to one well informed in regard to current literature to pick up from time to time a magazine, paper, or book of which he never heard, and to find that it has thousands of readers; the authors' names are unknown

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to him, their subjects and methods are strange; the whole complexion of the thing is of a different world. Occasionally some one makes an excursion into this new province, added to our literary domain, and reports what he has found of the taste and morals prevailing there; and what we learn breaks on our routine of thought and feeling very much as the applause of the gallery-gods does at the theatre. This literature is altogether too vaguely within our view to be discussed. It has been said in the copyright agitation that much of it is of English origin, and will be unable to stand against the competition of a better American kind. One thing may be affirmed of it with certainty; it is all written for money. And if English writers have been found, who in their own country have produced for a similar class of readers among their countrymen work of this sort, what reason is there to believe that American writers will not also be found to produce the same thing under copyright here for the price that suffices there? It seems erroneous to think that this reading public prefers what is called "good literature" to what it already pays for, and takes the latter merely because it is cheaper. Cheap editions of what educated men suppose would infallibly appeal to this public have been issued, and the choice could not be bettered; but the editions remained unsold. There is a demand for just that sort of reading which is now taken in vast quantities, and it will infallibly be satisfied until the taste changes. Is it doubtful that it is already being satisfied by American writers who are ready to do more of the same kind for the same wages? Such publications are a part of the book-trade; they are commercially valuable; the copyright law, at best, has only raised the price—perhaps not even that.

Somewhat nearer to us than this nameless literature of which the manufacture goes on unnoticed by the journals of literary opinion and without the knowledge of the educated class, are the books which win great popular success. They are clearly within range. The names that lead the rest readily occur—Ouida, Roe, Lew Wallace, Albert Ross, Bellamy, and more at will. The great sale that all or some of the works of these authors have had, is proof of a multitude of readers in each case; and there is such variety in the five mentioned that it is fair to

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infer that no one of them exhausts more than a portion of the general market. Roe and Ross probably compete very little with each other, and each numbers his readers by the hundred thousands; Ouida and Bellamy are likewise far apart; but the readers of Lew Wallace are, in large masses, the same with those of Bellamy and Roe. The audiences of these writers are the Asiatic provinces of literature, mere numbers; and hence the supply of this market embodies in the strongest form the commercial motive. Each author stands for a distinct type of novel and group of ideas and sympathies, and in their works may be found reflected widely prevailing moods of the people. Each has been imitated to a greater or less degree. It is sufficient at present to remark only upon two, Lew Wallace and Albert Ross. To the first is due the religious school of fiction, which shows no signs of becoming barren, and on the contrary may long continue; the school which usually turns the gospels into sensational novels, but sometimes resorts to the Old Testament for its plots. It presents a curious return of popular taste to the old miracle-play, as unlikely a reversion as could have been dreamed of. Taken age for age with the change of civilization, our time, in finding interest in a Biblical novel, repeats the period of the religious drama, and occasionally the latter-day story is as crude, comparatively, as was the earlier play, as coarse in its feeling and as revolting in its action. Lew Wallace, learning from Kingsley and Victor Hugo certain literary effects, wrote a tale that was at least powerful in adventure, scene-painting, and the feeling for humanity; it had force, though somewhat rudely exercised; and, if its attraction was at times a meretricious glitter, there was also much besides to hold and fasten the mind by the energy of great ideas in which the Christian world is built. If the actual reverence of the reader was not offended and his sense of artistic propriety was not violated, there is no room to wonder that he enjoyed the tale and felt it deeply. But, while to say this is justly due to the author, it is impossible to make any similar allowance for the imitations to which his example gave rise; they are only degradations of the sacred story. The works of Albert Ross are of a very different order. It is not surprising that one almost involuntarily says

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that, if this is what the people prefer to read, it were better had they never learned their letters. Such a feeling can be only momentary, but it is natural. As it is better that a man should vote though he vote for a scoundrel, it is better that he should read though he read bad books. The literature of the seventh commandment has not hitherto flourished in communities of English blood either in the crude or the developed form of fiction; but it is certainly increasing on the book-stalls, and it is widely read. It is not long ago that the plea was made by one of those who regret the limitations imposed on the English novel that, since we are to have such stories by inferior authors and in their most unliterary form, it would be better to have them by masters of the art in the French taste. This is the same error as that involved in the expectation that a better American sort of popular reading will force out of the market the English wares already referred to. The public which demands the inferior kind will not take the better, if produced. An American Guy de Maupassant would not compete with Saltus or any other of the authors in this part of the field. These books are seldom mentioned in our journals or magazines, except when advertised; they are published and circulated silently; so far as criticism is concerned, they are ignored; but they are read. In addition to these two classes of novels, which are comparatively recent and still multiplying, any one at all acquainted with current literature can easily recall the sort of fiction that has been most eagerly absorbed by the public in very large editions during recent years. The five authors who have been named not unfairly represent its good and evil. They have received large sums for their works, and with the exception of Bellamy, the commercial motive was as strong in their cases as in any in our day; other motives were present, no doubt; but the noticeable thing is that, from the point of view of trade, this is the sort of literature which has brought the largest immediate returns.

A more interesting, though not more important branch of the general subject, and the last which will here be touched upon, is the influence of the magazines, which to a considerable degree are the paymasters of authors both young and old. The matter is more complicated in respect to these, but one or two promi-

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nent features can be made out. The earlier reviews, the great quarterlies of the first half of the century, certainly gave to their contemporaries the best intellectual opinion of the day, and they gave to literature the essay as Macaulay conceived it in England and as Lowell wrote it among ourselves. The great popular magazines of to-day, vast as is their beneficent influence among the people, both for knowledge and for entertainment, have done nothing so notable as that, in pure literature. The "Atlantic" has an honorable record of new authors encouraged under its editorship in years past, and of established authors sustained in a high standard and brought more before the public. The other magazines have given us the dialect story in particular, and the short story in general; that is to say, this form of literature has been forced under the demand made for it, and with more or less perfection of execution it chiefly characterizes the literary product of the time. They have also fostered light verse, and especially those French metrical forms in which a young man of talent can most easily make the least of himself. The general tendency of all later magazine writing, both in verse and prose, is toward the momentary, the striking, the epigrammatic, phases and incidents at the most, and *bon mot* and *bric-à-brac* at the least. Only their literature is here spoken of, and that element in them is, except for fiction, a subordinate one. Is it not, in consequence, due to the magazines mainly that our literature is of what has been aptly styled the "cherry-stone" type? Cherry-stone literature most admirable, no doubt; but the best in this kind are but trifles, though they be now and then immortal. The magazines have some powerful attractions which, in connection with this topic, should not be forgotten. It is in their power to give an unknown writer a large audience at once, without his having earned the right to be listened to; the mere insertion of his name in the table of contents gives a kind of notoriety, insures mention in many papers and advertisements, and, in short, puts the machinery of journalistic fame at his service for the time being. The press, too, in its eagerness for personal news and the taxing of all resources to fill its issues, gives material aid in the spread of this notoriety, such as it is. It was never so easy as now for an author to be named in print

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irrespective of what he has done. He is known, if his works are not. For this the magazines are chiefly responsible, not by choice but by the necessity of the case. The natural desire of a writer for a great body of readers and for personal reputation is thus satisfied at once, and, as the magazine is his easiest road to these ends, he is willing to submit to its conditions almost without a thought; besides, if he needs money, there is the best counter for him to go to, and the cherry-stone, in story, essay, or poem, is most sure of quick purchase. So far as the working of the commercial motive is illustrated by the magazines in other departments than literature there is no question but that it secures the most authoritative knowledge in the most portable and interesting form, and parallels the service done by the same motive in the book-literature of popular knowledge. But so far as literature in the strict sense is concerned, it does not appear that the necessary conditions of a magazine for general circulation permit much substantial encouragement of it. On the contrary, if we judge by the results of the last score of years, it would seem that the magazines tend rather to emasculate literary talent by directing it to small things, except in fiction, and even in that department the influence is in the same direction.

If these generalizations upon a very broad and complex subject have any validity it must be concluded that writing for money would lead rather to hack-work for the nameless trade of the Unknown Public; or to emulation of those who must be called our literary demagogues, often no doubt sincere, as political demagogues also are—Ouida, Roe, Lew Wallace, Albert Ross, and Bellamy; or to contributing to magazines under conditions highly unfavorable to literature of a great kind. In other words, it must be thought that the commercial motive cannot be relied upon to secure literature important enough to be called national. The fact is that the book-trade, like other branches of business, consults the taste of its customers and seeks to please the largest number. The reading public is now such, so far as can be judged, that the mass of readers is too imperfectly cultivated to impose such standards, either in matter or style, as would make a national literature of the first order. Our national life has been rather of the Roman cast. Our great achievements have been

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political, military, and engineering. Our renown rests on these. Our literature has been incidental; but, modest as it is, it is much cared for by a considerable and influential part of the people. It will be welcomed in the future as it has been in the past; but great authors must still be content to write from the inner impulse and to wait for their fortunes, without much care for the money that may be gained. The notion that the copyright law will make any appreciable difference is probably a mistaken one. The increase of gain from foreign sales will be very slight, except in the case of genius, and then it will come only after the time of struggle, when encouragement is no longer needed. Copyright is justice—that is all, and that is enough. The cloud of argument, arising from other grounds, that has gathered about it may have served a purpose; there is no reason why it should longer obscure the main issue. The ground of justice is one from which advance can still be made; the ground of expediency, once admitted, ends in inevitable compromise. So far as, in the course of the agitation, it has been made to appear that literature which has greatness in it, for the author and the nation, is dependent on pecuniary gain, a little more or a little less, or is encouraged by the strengthening of the commercial motive, the argument is not only fallacious, but at the present time rather works against our chances of literature than for them. At the best this motive has operated to give us in late years humor and fiction, characteristic, it is true, but unprofitable in proportion to its excellence, and in no instance recognized with certainty to belong to the literature that lasts beyond its generation. No one well acquainted with the conditions now ruling would feel free to advise any youth, however talented, to trust to literature for his living; the chances are many against one that he would find his grave in journalism. On the other hand no one would hesitate to tell him that a condition precedent to his success in contributing to the literature of his country, even if he had genius, is to throw away all thought of money in the present, to refuse to work for it unless it comes in his way of work, and especially to resist the temptation of a little success for a little thing.

GEORGE E. WOODBERRY.

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PROFITS OF FRUIT-CULTURE IN CALIFORNIA.

THE missionary fathers planted fruit trees and grape vines in California contemporaneously with the founding of religious and educational institutions, but merely to supply the domestic demand, and it is only within a comparatively few years that fruit-culture has been engaged in there for revenue. Its importance as a source of wealth is now fully appreciated, and its development henceforth will be very great. The fruits that are successfully grown in California are the apple, the apricot, the peach, the pear, the plum, the prune, the nectarine, the cherry, the fig, the olive, the guava, the loquat, the orange, the lemon, the lime, all the berries, grapes for the table, for raisins, and for wines, the English walnut, and the almond. These fruits do not grow equally well in every locality, and some of them are confined to particular sections. In common parlance, fruits in California are divided into two classes, the deciduous and the citrous, and for convenience they will be thus designated in this article.

Fruit-culture began in the middle portion of the State; that portion first attracted immigration. It had San Francisco for a shipping point and the Sacramento River for transportation. It has numerous rich valleys and extensive plains, it was first connected by rail with the East, and it has been more densely peopled than any other section. Naturally development and diversification of products took place earlier there than elsewhere, and therefore in all kinds of fruit to which it is adapted, it takes the lead. The citrous fruits are not successfully grown there, and cannot be, except in a few limited and favored spots, but it is claimed that the climate and soil of that part of the State give it advantages over any other section in the production of all the deciduous fruits, berries, and grapes. There can be no doubt that the people of that section practise superior methods of cultivation, and have been more careful in picking, pack-

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ing, preserving, and shipping their fruits than those of southern California. Their products have acquired a better name in the markets, and are more widely known; and it may be that that section of the State is best adapted to growing many kinds of fruit. But the success that has followed the efforts made in the southern part of the State within the last two years has immensely increased expectations and given strong evidence that southern California can successfully compete with the central section in growing most, if not all, classes of deciduous fruits.

The Tehachapi range of mountains may be regarded as the northern boundary of what is called the "citrous belt." Southern California, as commonly understood, comprises six counties: Santa Barbara, Ventura, Los Angeles, Orange, San Bernardino, and San Diego. The climate is *sui generis*, and in giving range to productions it is perhaps superior to that of any other country in the world lying in the same latitude. The Tehachapi range connects the Sierra Nevada with the Coast Range and extends to the sea. For 200 miles on the coast, and for distances inland varying from a few miles to 80 miles, the country is open to the sea breezes. The winds are monsoons and blow from the north-west during the summer and from the south and south-east in the winter, modifying the temperature properly in all seasons. There are no frosts that do appreciable damage, and it is never oppressively hot. The climate is especially adapted to growing the citrous fruits, the fig, the guava, the walnut, and the almond.

The soil of California in valleys and upon "mesas" contains mineral and vegetable fertilizers that have for ages been washed down from the mountains. Its richness is almost phenomenal, and it has borne all kinds of crops so abundantly and so long that many Californians believe that its fertility cannot be exhausted. But it is, of course, not of the same strength or depth in all localities. The belief in its inexhaustibility has led to imperfect cultivation, and to the growing of such continuous crops that production has not been as great as it might have been. Vineyards have borne for a hundred years in some cases without replanting and without fertilization. Deciduous fruit orchards are rarely enriched; until within the last 10 or 15 years orange

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groves were not fertilized, and the fertilization of many of them is still neglected. As it is apparent that fruit will in the early future become the greatest source of profit, the people are studying methods of cultivation, are beginning to utilize all the means of developing production to the utmost, and are making use not only of manures produced in the country but of all valuable and available commercial fertilizers, with excellent results. Soil and climate are so favorable that the fruit crop never fails, though the yield is not always the same, and on the average profits are eminently satisfactory.

As is well known, California has its wet season and its dry season, and water for purposes of irrigation is an important matter to be considered. It is necessary only in the production of certain kinds of fruit. The deciduous fruit trees are not irrigated, as a rule, and they bear fruit as abundantly and of better flavor without it. In selecting a place for peaches, apricots, prunes, apples, cherries, pears, nectarines, or figs, only soil and climate need to be regarded. The wine grape has more sugar without irrigation, and it is asserted by men of experience in wine-production that a good article cannot be produced with irrigation, but the muscat or raisin grape vine must have water during the dry season in order to insure a large yield and a good quality. Absence of fogs or moisture in the atmosphere is essential during the drying season. Fresno and other localities in the San Joaquin valley are especially adapted to raisin-culture on account of a rich soil, abundance of water, and the dryness of the atmosphere in the latter part of the summer and early autumn. The same is true of El Cajon valley in San Diego County, of Hesperia, and generally of San Bernardino, and of a portion of Los Angeles County. The walnut tree requires some irrigation unless it be planted in moist land where the water is near the surface. The cost of producing the deciduous fruits is small, and the net profit is large. The fig tree is a profuse and constant bearer and requires very little attention. The peach, the apricot, the prune, the pear, the cherry, and the nectarine begin bearing very early. The walnut is of slower growth and does not produce in large quantity till the tree is from 15 to 18 years old, but its longevity exceeds that of the other deciduous

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trees. All the berries yield abundantly, but they require liberal irrigation.

Citrous trees require generous irrigation and a deep, rich soil. Experience in other countries demonstrates that they flourish best in a stiff loam or calcareous marl intermingled with vegetable humus. The citrous tree, being evergreen and returning but little that it takes from the soil, is extremely exhaustive of fertility. It requires intelligent and thorough cultivation and liberal fertilization. It is generous when well treated, but revengeful when neglected. The longevity of the orange tree is very great. There are trees in the Old World that are reported to be centuries old and are still bearing. The seedling does not reach its highest bearing state till it is 40 or 50 years old, and it thereafter continues from 50 to 80 years with undiminished power. The budded trees, such as the navels and bloods, are more precocious and, reasoning from a general rule, it is supposed that they do not last so long. However that may be, a young man of twenty-one who plants an orange orchard will have a comfortable income after six or eight years, and thereafter it will be princely during his life and the life of his children. The olive flourishes in southern California, but its cultivation as yet is limited. Great success has attended the efforts of Mr. Elwood Cooper, of Santa Barbara, and the Kimball Brothers, of San Diego County. Very little pickling has been done, the bulk of the fruit being used in making oil.

Profits from the cultivation of fruits of nearly all kinds have been and are very large, but as yet some of them, such as the fig, the walnut, the lemon, and the lime, have been but little developed. Numerous general statements which seem marvellous have been published, showing how much of the various kinds of fruit has been produced per acre. In order that facts may be stated, I have communicated with growers in various parts of the State, asking exact information, that all localities may be impartially represented.

The Hon. J. F. Crank, of Lamanda Park, Los Angeles County, who has 250 acres of wine-grape vines, says that for several years past his vineyard has netted him $100 per acre, and this is a common result in all parts of the State where wine

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grapes are grown. The raisin yields a profit in Fresno, San Diego, San Bernardino, and Los Angeles Counties of from $150 to $400 per acre, when the vines are in full bearing. It costs more to produce the raisin grape than the wine grape. Walnut orchards yield from $200 to $400 per acre when the trees are 18 or 20 years old. Mr. James Stuart, of Downey, Los Angeles County, has received every year for the last four years $600 net for figs grown upon 72 trees, of which 108 are planted to the acre. I received $150 for the lemons from one third of an acre; and they were not cured but sold to local dealers. Similar results have been achieved in San Diego, Orange, San Bernardino, and elsewhere in Los Angeles County. Last season Mr. C. C. Thompson, of Pasadena, sold his fruit from 38 acres of peaches, apricots, and prunes, for $9,294, the cost of production being $1,000. In another case in Pasadena, about which I personally know, the peaches from one and a half acres sold for $500 on the trees. Last year Major Chase in El Cajon valley, San Diego County, received $2,600 from five and a half acres of prune trees, and the cost of production and preparation for market was $300. From 16 acres of apricots Mr. Stratton, of Azusa, last year received $7,300 after paying the cost of producing and preserving for market.

Governor Markham received $350 from one acre of orange trees in South Pasadena in 1889—the fourth bearing year—and the cost of production was $26. In the same year Mr. James Smith, of Pasadena, received $1,810 net, for oranges produced on three and one third acres. Mr. A. B. Chapman, at Chapman, for the crop of last year on five acres, received $500 per acre. Mr. C. O. Monroe, of Monrovia, for last season's crop grown on three and three fourths acres, received $1,775 net. Mr. J. A. Graves, of Alhambra, raised last season on eight acres 7,000 boxes of oranges, which he sold for $1.35 per box; and 184 trees yielded Mr. F. Q. Story $4 per tree, 120 trees to the acre. Judge E. M. Ross received for his last crop produced on somewhat more than 50 acres at Glendale an average of $500 per acre, net. These cases are all in Los Angeles County. Mr. Frank P. Morrison, of Redlands, San Bernardino County, received for the last year's crop $900 per acre, and the Hon. Scipio Craig

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says that seedling orchards in that county will average $400 to $500 per acre. Riverside is the most celebrated place for orange production in the State. Receipts per acre have been as high as $1,200, and $400 and upward are not uncommon. Similar results have been achieved at Anaheim, Orange, and Tustin, in Orange County; at Duarte, Pomona, and Vernon, in Los Angeles County; and also in San Diego, though orange culture is yet limited in that country.

Cases may be cited in great numbers where large profits have been realized. It is customary to claim that certain localities are especially favored on account of soil and climate, but results show that there are hundreds of places in California where fruits are grown with substantially the same success. Differences in results are due in part to climate and soil, but more to erroneous selection of varieties and to defective methods of cultivation. Time will very soon demonstrate that no locality has a monopoly of superior natural conditions. The cases cited do exaggerate general results if the production of all orchards and vineyards is considered, for there are many which have suffered from neglect or from unintelligent management. If the figures given in specific cases are reduced one half, no one will maintain that they would then be above the average of general results; and, if that be the rule upon which judgment is formed, it will yet be undeniable that profits from fruit-culture in California exceed anything that has been or can be achieved elsewhere in the country in agricultural or horticultural production.

I am unable, with the data at command, fully to state the quantities of fruits produced in California. There are no figures showing the extent of local consumption, or even accurately all that is exported. Considerable quantities are carried away by sea, but the ports from which shipments are made are so numerous that it would be almost impossible to arrive at exactness. From the new port of Redondo Beach alone 1,443 tons were shipped in 1890. Most of the fruit, however, is carried out of the State by rail, by the Southern Pacific and the Santa Fé roads. As the latter road has no line north of Mohave, its shipments are confined to points in southern California. The tonnage of the former road, for 1889 and 1890, was as follows:

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	North of Mohave.		South of Mohave.	
	1889. Tons.	1890. Tons.	1889. Tons.	1890. Tons.
Citrous fruits,.....	21	72	11,088	9,943
Deciduous fruits, green,.....	24,351	25,735	73	527
Dried fruits, except raisins,.....	15,888	19,560	678	2,424
Canned fruits,.....	18,798	42,529	758	1,362
Raisins,.....	7,816	13,665	969	888
Nuts,.....	411	188	350	598

The Santa Fé road carried out of the State the following quantities for the years 1889 and 1890, and for the first six months of 1891, from each of the four Southern counties:

	San Diego.			San Bernardino.		
	1889. Tons.	1890. Tons.	1891 (6 months). Tons.	1889. Tons.	1890. Tons.	1891 (6 months). Tons.
Citrous fruits,.....	10½	231	95	3,475	5,495	6,856
Green and dried fruits,...	60	264	12	480	2,040	24
Raisins,.....	84	900	46	2,280	2,952	108
Walnuts,.....	..	..	..	..	24	..

	Los Angeles.			Orange.		
	1889. Tons.	1890. Tons.	1891 (6 months). Tons.	1889. Tons.	1890. Tons.	1891 (6 months), Tons.
Citrous fruits,.....	2,940	1,806	4,998	787	693	1,654
Green and dried fruits,..	72	1,764	680	167	168	12
Raisins,.....	24	108	..	72	12	..
Walnuts,.....	262	252	..	12	24	..

During the speculative excitement in southern California, which terminated in 1888, little attention was given to fruit-culture. Lands were purchased to a considerable extent by non-residents for speculative purposes, and the collapse of the "boom" left many residents inextricably involved in debt. The result was that discouragement prevailed, and it was not till 1890 that the people put forth efforts to recuperate by agriculture or horticulture. Many orchards and vineyards had been neglected. A better feeling now prevails, and a change of conditions has been wrought. The spirit of speculation has been replaced by a determination to enhance values by the development of resources through cultivation. New orchards and vineyards have been extensively planted, and evidences of prosperity prevail on every hand. The early future will disclose an immense increase in fruit-production.

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No enemy of the apricot, the nectarine, the prune, the fig, the guava, the walnut, or the several kinds of berries has yet appeared. In some localities the grape vine has been afflicted with a disease which has done considerable damage, but the opinion prevails that it is disappearing. Peaches, pears, and plums have enemies, but these are easily and inexpensively disposed of. A few years ago enemies of the citrous fruits were imported, whose ravages were disastrous in some localities. They are the so-called red and white scales. The latter have been completely exterminated by the Australian lady-bird, or *vedalia cardinalis*, imported by the Agricultural Department. The red scale is rapidly disappearing through the effect of spraying, and in some localities through the work of a parasite which has made its appearance. This pest is now regarded as trifling; at any rate it does not deter the people from making vigorous efforts in planting citrous orchards. That there are enemies of fruit trees should not therefore disparage fruit-culture in California. No valuable productions of the earth are exempt from foes. The world has been searched in vain for a place where they do not exist, and, so far as we are informed, no such spot has ever been heard of except the Garden of Eden. No part of the country where fruit of any kind is grown has suffered as little from pests as California.

The great increase of fruit-production within the last few years has raised the question in the minds of some whether there is not danger of over-production in the early future, to such an extent that prices will be so reduced as to leave no margin for profit. In proportion to the value of land and to the expense of production, profits hitherto have been enormous, and there can be a large reduction in prices before the fruit industry will cease to be remunerative. At the present time the production is far less than the demand. There are a few kinds of fruit that may be produced in excess of consumption, such as apples, pears, and the berries that are grown in all parts of the country. The peach is popular the country over; it is not generally produced in abundance everywhere, and the area where it is successfully grown is diminishing continually. Though prunes are raised in several sections, still we are importing quantities

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from foreign countries. The apricot, the fig, the raisin, the grape, and the walnut are grown in very few places except the southern half of California, and the same is true of the olive. The wine grape is cultivated with success in few and restricted districts outside of this State. California is already regarded as the France of America, and her wines not only find favor at home, but are sold in quantities in several European countries. In the United States oranges and lemons are produced only in California and Florida. The orange crop of the latter is practically out of the way before that of the former is ready for the market. The California orange is of slower growth than the Florida product and does not decay so soon. The orange season in California lasts five months, beginning January first, and it will be prolonged in future, as the people are planting Valencia oranges, which do not ripen till July. The lemon is more sensitive to frost than the orange, and it is produced with more difficulty in Florida than in southern California for the reason that the former State is more subject to frost. It is a fruit extensively consumed, and domestic production is hardly a tithe of our consumption. The wide range of productions in California operates as a check upon over-production in any one thing. If too much of one kind is produced, and too little of another, it is easy to change from one to the other, or the people can resort to growing grain and vegetables. It is not as if productions were limited in range

There can be no doubt that fruit-production in California will increase out of proportion to the increase of population, but this is not a proper rule for calculating future demand. Consumption *per capita* will be larger; for by continued use luxuries are converted into necessaries. The time is not distant when fruit of some kind upon the table will be deemed as essential to good living as sugar. Abundance also stimulates efforts to find new markets and to extend trade. There are millions of people in the United States who only occasionally see oranges, and there are still more who do not use fruit as a regular article of food. Americans are the greatest consumers in the world; and producers, dealers, and transporters will exert themselves to place fruits within the reach of all.

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If prices are reduced in the future there will be some compensation for the loss. The orchards and vineyards will then have reached full bearing condition and the yield will generally be much greater without corresponding increase in the cost of production. Transportation rates should be materially reduced as tonnage increases, for volume of traffic is an important item to be considered in determining the reasonableness of the carrier's compensation.

Californians have large ideas on the subject of profits, because they have been accustomed to those which are inordinate. What in other countries would be regarded as princely they are likely to look upon as moderate, and perhaps as unsatisfactory. Ideas may have to be modified and results estimated from a new point of view. Prices can be materially reduced and still leave a margin for satisfactory profits. When fruit-culture becomes non-remunerative it will be time to be discouraged; but that will not occur within the lifetime of the present generation, and probably it will never occur. There is every inducement to double our efforts, for they will be amply rewarded in money and will confer a blessing upon mankind.

LIONEL A. SHELDON.

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DOES PUBLIC LIFE GIVE LONG CAREERS?

THE attitude of the recent Republican State convention in Ohio toward John Sherman raises the question whether his party will give the veteran leader another term in the Senate, if it has the chance. The incident suggests an inquiry as to the general subject of the stability of public life. What is the likelihood that a young man, with an ambition for a career as a public man, will be able to realize it? How does our treatment of public men compare with their treatment by our fathers?

The colonies inherited from England the tradition that the conduct of public affairs should be committed to a class of men who had shown especial qualifications for the task and had been trained for it; and that such men, when they had proved their fitness, should be kept in office indefinitely. This was particularly true of New England. In Connecticut a man who once entered the Legislature was likely to be returned by his townsmen year after year if he cut a creditable figure at the capitol. Thus Jedediah Strong, of Litchfield, was elected to that body in 1771, and sat in it for thirty regular sessions thereafter, as he doubtless might have continued to do still longer if he had not fallen into bad habits. During this same period Caleb Strong, of Northampton, Mass., served as county attorney from 1776 to 1800, meanwhile being also a member of the State council in 1780, State senator from 1780 to 1789, and United States senator from 1789 to 1796.

In like manner the governor was apt to be given a long tenure of the office by successive re-elections. John Hancock was chief executive of Massachusetts from 1780 to 1785, and again, after an interval of two years, from 1787 until his death in 1793; while Caleb Strong filled the chair from 1800 to 1807, and again from 1812 to 1816. In Connecticut the people kept the first Jonathan Trumbull in the governor's chair from 1769 until he resigned in 1783; in 1798 they elected his son Jonathan

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to this office, and it became so much of a habit with them to do the same thing every year that it really seemed as if he had a life tenure of the place when he died in 1809. Again and again New Hampshire called John Langdon to her highest office, his terms covering the years 1788–90, 1805–09, and 1810–12. In Vermont Isaac Tichenor served as governor continuously from 1797 to 1807, and again during 1808 and 1809.

Such men were usually college graduates (Tichenor had taken the course at Princeton, and Hancock, Strong, and the two Trumbulls at Harvard) and had made a study of the science of government, very much as the clergy had made a study of theology. The common people were educated to the idea that training was essential in a statesman, and they regarded the high official as belonging to a class no less distinct from themselves than the clergy. In fact, the common people in many of the States had little to do with the choice of their rulers. The right of suffrage in New York was limited to free-holders, and in Massachusetts a property qualification of £60 was essential.

With the departure from the stage of the generation which carried through the Revolution and established the new government, a change came over the public mind. The poorer classes demanded that their lack of wealth should not debar them from exercising the suffrage, and property tests for the ballot went down before this demand. It was now established that "one man was as good as another" at the polls. The next step was easy and inevitable. If one man were as well qualified for the suffrage as another, why not as fit to hold office? The rise of Andrew Jackson to the presidency represented perfectly and appropriately this growing sentiment among the masses. Until his day every one of the chief executives had been a trained statesman, who reached the highest office in the nation as the culmination of a long career in public life. Jackson's accession meant the development of the idea that government was not an art which one could master only by hard study and long experience, but that it was something which came almost as easily as voting.

The old theory had tended to keep the statesman long in office, just as it was the custom to retain the clergyman in his

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church for life. Such individuals as Strong and Trumbull were regarded as men who were infinitely better qualified to govern Massachusetts and Connecticut than Smith or Brown, and therefore it seemed obviously the best policy to keep them in the executive chair year after year. But when it came to be accepted as a fact that Smith or Brown was really as fit to be governor as Strong or Trumbull, it naturally followed that neither Smith nor Brown had any claim to hold the office long. In truth, it seemed only fair that Jones and Robinson should also be given a chance, and the shorter the time that Smith and Brown served, the better would be the opportunities of the rest.

The doctrine of "rotation in office" was everywhere preached. Its advocates skilfully played upon the public fear that the servant might assume to be greater than the master, and cunningly argued that this must prove the case if the same man were kept in office term after term. The plea may be found well put in an editorial article which appeared in the Richmond, Va., "Enquirer" during the autumn of 1822, when members of Congress were to be chosen. The editor admitted that, "if men were incorruptible in their nature, no matter how long or how remote their employment from the people, longer practice in their various posts would only improve their dexterity and usefulness in service." But unfortunately the drift, in his opinion, was the other way; like streams which have flowed far from their native fountains, "they cease to partake of their original simplicity and purity, and become open to the influence of every new combination, pure or impure, which may assail them through their various assailable points." After pointing out the mischiefs which must thus result, the article proceeded: "Can any better plan be devised to prevent this than a frequent recurrence of public servants to the nature and condition of their constituents? Let our members of Congress be changed; let them be changed often."

So generally sensible a man as Hezekiah Niles endorsed this argument most heartily in his "Weekly Register." In support of it he quoted this remark made to him by "a pure-hearted, strong-minded Republican [Democratic] member of Congress" in Washington several years before:

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"I am entirely convinced that every member of Congress ought to go out at the end of four years and be ineligible for two succeeding years—for the fact is that, in spite of all we can do, the very best men among us become more or less impressed with opinions not conformable to that of the people, and we act as though the people were their own worst enemies, requiring our wisdom and grace to prevent them from harming themselves, so that the creature assumes the power of the creator."

All of which Mr. Niles pronounced "as true as the Gospel."

Another influence arose about this time to strengthen the tendency toward rotation in office. This was the development of the spoils system, which followed the passage in 1820 of the law fixing a four years' term for a large number of officers whose tenure had previously been during good behavior, and making them removable at the pleasure of the president. This law rendered possible the "clean sweep" policy. When Jackson became president he declared, in his first message to Congress, that "rotation is a leading principle in the Republican [Democratic] creed," and he put in practice the theory openly enunciated by Marcy in the Senate, that "to the victor belong the spoils of the enemy." The judiciary of most of the States did not escape the demoralizing influence of this doctrine. The rule had been to appoint judges who should hold their places during good behavior. It now became the practice to elect them by popular vote, and only for short terms. The life tenure of Federal judges could hardly have escaped assault but for the fact that the constitution provides that they "shall hold their offices during good behavior." Jefferson, indeed, went so far, toward the close of his life, as to advocate a change by which judges should be appointed for only four or six years, a fresh nomination by the president and confirmation by the Senate to be essential to a renewal. His fear was that these Federal judges, "responsible to no authority (for impeachment is not even a scare-crow)," might proceed to "the annihilation of constitutional state rights, and the removal of every check, every counterpoise to the ingulfing power of which themselves are to make a sovereign part." His argument for the short term was that it "will bring their conduct, at regular periods, under revision and probation, and may keep them in equipoise between the general and special government."

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New York and other northern States accepted rotation in office, and the spoils system into which it so naturally fitted, far more heartily than the South. The very year that the Richmond "Enquirer" was preaching the doctrine so vigorously Virginia re-elected to Congress 18 out of 22 representatives, five of the 18 being then in their third terms, while five others had served in from five to eleven Congresses. The same year New York gave another term to only eight of her 27 congressmen, and but one of the eight was beyond his second term. One explanation of the difference between the two sections in this respect is the fact that restrictions upon the suffrage continued in the South much longer than in the North, Virginia not abolishing the property test until 1850 and South Carolina retaining it until the civil war. Even where they voted, the poorer classes exerted far less influence upon the course of politics than in the North. Moreover, the leaders of public opinion in the South were quick to see the immense advantage which length of service gives one man over another in Congress when all other things are equal. They perceived that training and experience would go far to make their minority of numbers a match in real effectiveness, for a majority which was constantly changing in composition. The result was that, of South Carolina's six representatives in the last ante-bellum Congress, two were serving their fourth terms, and one his sixth; while of Virginia's twelve, one had been elected three times, two four times, two six times, and one seven times. The contrast between the two sections was thus pointedly characterized by James Russell Lowell in one of his political essays published during the war:

> "Owing to the wretched policy (if supineness deserve the name) largely prevalent in the North, of sending to the lower house of Congress the men who needed rather than those who ought to go there—men without the responsibility or the independence which only established reputation, social position, long converse with great questions, or native strength of character can give—and to the habit of looking on a seat in the national legislature more as the reward for partisan activity than as imposing a service of the highest nature, so that representatives were changed as often as there were new political debts to pay or cliques to be conciliated—owing to these things, the South maintained an easy superiority at Washington, and learned to measure the Free States by men who represented their weakest, and sometimes their least honorable, characteristics."

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The war did not shake the traditions of the South regarding the wisdom of this policy. As soon as the reconstruction era ended and the Democrats again came into control, they resumed the practice of sending their leading men to the national capital and keeping them there for long terms. In not a few cases these were men who had begun a congressional career before the war, as in the case of John H. Reagan of Texas, who was a member of the House in the Thirty-fifth and Thirty-sixth Congresses, and after serving as postmaster-general of the Confederacy, resumed his old seat at Washington in the Forty-fourth Congress, was given twelve years in the House and was promoted in 1887 to the Senate. Of the eleven representatives from Mr. Reagan's State in the Fifty-first Congress two had been elected three times apiece and two others four times in succession, while one was completing his eighth consecutive term, and another his ninth. Mississippi had seven representatives, of whom three were serving their third terms and one was serving his sixth. Of the five from Arkansas one had been elected three times, and three four times. Georgia had ten seats in the House, and of her representatives in the last Congress one was serving his third term, two their fourth, two their fifth, and one his ninth.

The North has learned wisdom from the South in this respect, although the average length of service of the northern representatives in Congress is still far less than that of the southern. This is, to be sure, partly due to the fact that there are many more close districts in the North than in the South, but more largely to the survival in some States of the belief that an office is an honor to be passed around among a large number of men, rather than a trust to be given to the man best fitted to use it for the general good. There has been a marked difference in this matter between States and between cities—particularly between the metropolis and Philadelphia. New York City makes frequent changes in her congressmen, while of the five members elected from Philadelphia to the last Congress one had served 10 years, another 16, the third 24, the fourth (Samuel J. Randall) 26, and the fifth (William D. Kelley) 28. Some of the smaller States have learned that they may make their influence stand in inverse ratio to their numbers by keeping the same repre-

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sentatives for long periods. Each of Vermont's two members in the last Congress was serving his fourth term. Of Maine's four, two were members for the fourth time, one for the fifth, and one for the seventh time. On the other hand, of the eight from New York City four were serving their first terms, and none of the other four had been members of more than one previous Congress.

As regards the Senate, there has been a pronounced growth of sentiment in favor of re-electing an incumbent, during the quarter of a century since the war. Twenty-five States (not counting the newly-fledged commonwealths) chose senators for the term beginning on the 4th of March, 1891. In five States there had been a change in party control of the Legislature, and in two cases incumbents had declined a re-election by reason of age or ill health. Of the remaining 18 only two failed to be returned. It was the second term of six years for which five had been chosen; the third election for six; the fourth for four; and the fifth for one. Two years before, 26 senators were elected. In two States there had been a political revolution, and in a third the incumbent declined an assured re-election. Only two of the remaining 23 were denied a re-election. Nine were given a third term, and one a fourth. Mississippi, under her new constitution, holds State elections only once in four years, and the Legislature to be chosen next November will dispose of both the senatorships. One of the incumbents is serving his second term, and the other his third. The canvass has already progressed far enough to show a general disposition in their party to re-elect both.

There has been a reaction of late years from the popular demand of a half-century ago for short judicial terms. Both New York and Pennsylvania, which in 1846 and 1850 respectively reduced the tenure from good behavior to eight years, have extended the term, the former to 14 years and the latter to 21. Massachusetts has never wavered from the system of appointing judges for life, and no State has a more creditable judicial record. The same system is now confessed, after a full century's experience, to have worked so well in the case of the Federal judiciary that nobody would think of proposing any change, even if change could be made more easily than by

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amending the Constitution. The idea which Jefferson suggested in 1822, of cutting down the term of such judges to four or six years, would be received to-day with mingled ridicule and abhorrence. The successful operation of life tenure on the Federal bench, and wherever it has been adopted in the States, encourages those who would make this the rule throughout the country. One step in that direction which many States are taking is to re-elect a faithful judge at the end of his term, often by the united vote of the two political parties.

At the other end of the office-holding line there has been an even more notable development. The "clean sweep" of the spoils system was based upon the theory that there ought to be a change in the lowest office whenever there was one in the highest; that the clerks in a Washington department or the carriers of the New York post office should be turned out if the party which had appointed them lost the presidential election; that a new administration could not "carry out its policy" unless it put in men of its own faith to add columns of figures, stamp letters, and distribute mail matter. The Civil Service Law, which has now been in successful operation for eight years, has exposed the absurdity of this theory. The nation is already growing accustomed to the sight of many thousands of Washington clerks performing their utterly non-political tasks with equal zeal whether a Republican or a Democrat sits in the White House. The business man of New York no more expects the government to turn out an efficient mail carrier because a new president has come in, than he would expect to change his office boy for the same reason. The range of places covered by the law steadily widens, until the total number now exceeds 32,000. The sphere of its operation is extending so as to affect higher grades of employees. While there is still much abuse of the system among professional politicians, its bitterest enemy no longer has any hope that the law will ever be repealed. On the contrary, no candid person, who has studied the drift of public sentiment and watched the action of national administrations during the past ten years, can doubt that a steadily growing proportion of the government's subordinate employees will be assured the tenure of good behavior.

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John Sherman is the most striking example of the stability of public life in our day. He went from Ohio to Washington as a member of the House of Representatives in 1855, continued in that body until 1861, served in the Senate from that time until 1877, was secretary of the treasury for the next four years, returned to the Senate in 1881, has been re-elected once since, and, when his present term expires in 1893, will have held office at the national capital continuously for 38 years, without being considered by anybody too old to begin another six years' term at the age of seventy. Justin S. Morrill entered the House from Vermont the same day with Mr. Sherman, served 12 years in that branch, and has completed his twenty-fourth year in the Senate, with another term just awarded him by his State at the age of eighty. Henry L. Dawes, of Massachusetts, joined Sherman and Morrill on the floor of the House in 1857, remained in that branch for 18 years, and will complete another 18 years in the Senate with the expiration of his present term in 1893. Although Mr. Dawes reached Washington two years later than Mr. Sherman and Mr. Morrill, he had, unlike them, already held office repeatedly in his State, so that his public life is really much the longest, dating back to his election to the Legislature in 1848, and with only a break of a single year (1851) covering the entire period of 43 years since then. So, too, George F. Edmunds entered the Vermont Legislature in 1854, a year before his long-time colleague, Mr. Morrill, took his seat in Congress, and he was a member of one or other branch of that body seven of the twelve years before he went, in 1866, to the Senate, where he undoubtedly might remain indefinitely if he would consent to serve. The resignation of Mr. Edmunds closes a record which was already without a precedent—the representation of a commonwealth in the Senate by the same two men for a continuous period of 24 years—with the result that their small State has long held the chairmanships of the two most important committees, on finance and on the judiciary.

The South would match the longest records of the North but for the break caused by the war and the disabilities under which so many of her most prominent men labored during the reconstruction era. John H. Reagan entered Congress with Mr.

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Dawes in 1857, but he had been a deputy surveyor of public lands as far back as 1839, and served in that capacity, as member of the Legislature, or as judge, half of the 18 years from 1839 until 1857; while he has held office, either at Washington or under the Confederate government, all of the time since 1857, except from 1865 to 1875, while the Republicans were in power in Texas. Isham G. Harris was elected to the Tennessee Legislature in 1847, the year before Mr. Dawes went to "the Great and General Court" of Massachusetts; began four years' service in the lower branch of Congress in 1849; became governor in 1857, and filled three terms of two years; and returned to Congress, this time in the upper branch, in 1877. He is now serving a third term, which will not end until 1895. Zebulon B. Vance, of North Carolina, was sworn in as a member of the House of Representatives at Washington the same day with Dawes and Reagan in 1857, after having been elected county attorney in 1852 and member of the Legislature in 1854; he served as congressman until his State seceded in 1861, and was its "war governor" from 1862 until the Federal authorities assumed control; he claimed an election to the United States Senate in 1870, but the Republican majority would not concede him the seat; he was again elected governor in 1876; in 1879 he went to the Senate with indisputable credentials, and he was recently re-elected for the term ending in 1897. His colleague, Matt W. Ransom, entered public life the same year, being elected in 1852 attorney-general of North Carolina, in which office he served three years; was a member of the Legislature in 1858, 1859, and 1860; was elected to the United States Senate two years later than Mr. Vance, but was more fortunate in immediately securing the seat; has served continuously since 1872, and is now upon a term which will not expire until 1895. Of the 76 members of the Senate from the older States when the Fifty-first Congress met, ten had served in that body continuously for 12 years, two for 14, three for 16, one for 17, one for 22, and one for 23 years, not counting Sherman and two or three others who had been senators and then had dropped out to return later.

All of the present tendencies are in the direction of greater

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stability in public life. The man who enters a Washington department through one of the lowest clerkships, after passing a competitive examination, can count upon keeping his place indefinitely if he continues efficient, with the prospect of promotion to higher grades from time to time. The man who aspires to a congressional career, if he once secures an election to the House from a district controlled by his party, may in most of the States expect a series of re-elections as the reward of conspicuous merit, with the chance of some day changing his seat to the Senate chamber. Even if he reaches the upper branch rather late in life, he will not find his age an insurmountable obstacle to his long continuance in a body which contains several members who have been chosen to new terms after reaching seventy. The man who would leave a name as a judge may reasonably hope that, if he reaches the bench of an inferior court, he will not suddenly be turned adrift after a brief term, but that he will be advanced to higher rank as vacancies occur, and so be able to spend all his active years in the employment which he would most enjoy. In short, the Republic seems to be steadily recovering from its strange delusion that public life is the one occupation in the world where experience is of no value, and where the best service is to be secured by the most frequent changes.

EDWARD P. CLARK.

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THE GREATHEAD UNDERGROUND ELECTRIC RAILWAY.

On November 4, 1890, there was opened with much ceremony in London a subterranean railway, carrying passengers from the Monument in the city to the Swan in South Lambeth, a distance of about three and a half miles, and at a depth of between 40 and 60 feet below the surface of the streets. This road is called the City and South London Railway. It is composed of two tunnels, which in their course underlie the River Thames, and pass under the mammoth Hibernia Wharf warehouses, the abutments of London Bridge, and the massive viaducts of the South-eastern Railway. The mode of traction is electricity, which at the same time serves to light the carriages and the stations.

When Mr. James H. Greathead, the inventor of the system of tunneling which is known by his name, proposed this line from London Bridge through the densely populated portions of the southern or Surrey side of London, and succeeded in obtaining the indorsement of Sir John Fowler and Sir Benjamin Baker, two of the leading engineers of England, he had, notwithstanding this indorsement, to fight, at the outset, many very serious difficulties in the way of inducing capital to enter into the project and of obtaining the necessary parliamentary concessions for the work of construction in the metropolis of London.

The old underground railway system of London, although carrying an enormous traffic, had not been a financial success. It is also a constant source of complaint to its patrons by reason of the offensive odors which permeate the tunnel, and its dampness and draughtiness. The traction of the old underground railway of London is by steam locomotives; and however successful the smoke-consuming contrivances of the engines, they cannot destroy wholly the emanations of ashes, and sulphurous gases of various kinds, which arise from the decomposition and direct consumption of coal, this being of necessity bituminous, as England has

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no anthracite coal. The contents of gas pipes, sewer pipes, and water-service pipes, all of which are more or less leaky, saturate and drench the brick arches of the old underground railway system of London with unwholesome moistures and smells, each brick being a lung which takes in and inhales this moisture and these odors from surrounding material and exudes and exhales them into the tunnel. These were the main reasons that caused Londoners and the English Parliament to be reluctant to extend a system of subways which in one form or another were open to such strong objections.

Mr. Greathead was compelled, therefore, to prove theoretically to both Parliament and the capitalists of England that his system overcame these objections, one and all, before he could obtain either concession or cash. That accomplished, he, for two and a half years, proceeded to build his road; and from the first day of its opening, on November 4, 1890, until the present day, every train has passed through the tunnel successfully, and, with trivial exceptions, on time. The passage of the first train demonstrated the validity of the inventor's claims before Parliament in behalf of this intermural system of rapid transit, and of its superiority over every other system yet devised, as a means of moving daily the population of a great city from one point to another. Every successive train brushed aside objections and objectors until at present there is a consensus of opinion, in England at least, that the solution of the question of rapid transit for cities has been found.

Given a built-up city with its lines of traffic and intercommunication already established, a new system which is to supplement and, in part, replace the existing lines, should meet six serious and important requirements:

(1) During construction, there must be no opening of streets to interfere with existing traffic; (2) in its operation, it must not impede existing means of traffic, by carriage, omnibus, street cars, and the like; (3) it must do little or no damage to property during its construction and by reason of its operation; (4) it must, when in operation, be a wholesome and pleasant means of transit; (5) it must be rapid; and (6) it must pay its projectors and promoters.

The Greathead system of tunnelling places the tunnel so far

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below the streets and houses of the city that the land occupied by it is of no value practically, and but of nominal value theoretically. There is no warehouse in any large city the cellars or foundations of which go 60 feet below the surface of the street. The land, therefore, that is occupied is wholly additional space recovered from the domain of no value and made of great value for this special purpose. The very depth at which the work proceeds makes it impracticable, after the sinking of the first shaft, that there should be one continuous open cut from the surface down; the road must be driven through the bowels of the earth. On the surface there is as little indication of its progress as was observable on the fields of the St. Gothard mountain, by the shepherds who fed their flocks thereon, of the advance of the St. Gothard tunnel, thousands of feet below their *sabots*.

The tunnel is circular, is driven through sand, clay, gravel, or rock, by instruments specially devised for such purpose, and is constructed after the opening is made, of sections of rings bolted and riveted together, with tarred rope to fill up the interstices. An inch and a half of grouting surrounds the whole outer surface left vacant by the cutting shield as it advances, making one uniform coating of Roman cement around this iron tube, which, when completed, is thereby forever protected from all gases or water percolating through the earth. Moisture, which heretofore has been an enemy to tunnelling operations, is, by Greathead's system, made a friend, which, at the moment he strikes it, he sets to work as a water shovel by building a diaphragm behind it, and then sucks the gravel, clay, or silt through his pumps and pipes to the surface. The surface openings are made in the interior of dwellings or warehouses which are purchased at different points and which ultimately become the entrances to the stations; therefrom the shafts are sunk and the levels driven after the shafts have reached their proper depth, precisely as in deep mining. The work proceeds without consciousness on the part of the people who use the streets that it has been going on, until the place which before was used for the purpose of removing the waste and of introducing the material necessary for construction, is converted into a beautiful passenger station. Into this station great hydraulic elevators, capa-

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ble of holding 75 persons each, are introduced, and carry passengers from the street to the depth of 60 feet or more and back again to the thoroughfare. More technically speaking, the manner of construction is about as follows: After a proper depth for the tunnels has been ascertained, a shaft is sunk and solidly bricked around. From this shaft the tunnels are started. The tunnel headings are side by side, or one above the other, as the ground and other circumstances favor, and are continued a sufficient distance to permit of the introduction of the hydraulic shield. (The City and South London tunnels are each a little more than ten feet six inches in diameter.) A dozen or more such tunnel-headings may be working from various sections toward each other to expedite construction. The shield consists of an iron tube of rather more than the full dimensions of the exterior of the tunnel tube, so as to slide over it like the cap of a telescope. In the rear of this shield there are built up two or three rings of the tunnel, formed of segments 20 inches in length, each ring being bolted to the next by a flange three inches in depth, and the outer space between the exterior of the iron tube and the excavation being filled with concrete, blown through small orifices in the tube. The shield carries, in circular arrangement within it, six or eight hydraulic presses, and when the pressure water is pumped into them their rams protrude against the flange of the last ring of the tunnel tube, and the shield is driven forward, its sharp edge cutting away another eighteen inches of the material to be displaced, and permitting the insertion behind it of another tube-ring built up from within. The heading in front of the shield is driven by hand, as in ordinary mining; but where water is encountered, a portion of the tunnel is built off by a diaphragm, with a door in it, in the rear of the shield. Again, in the rear of this a second diaphragm with a door is built. In this way the iron tunnel tube is laid and built in rings in regular consecutive order.

As fast as a segment ring of the tunnel is completed, it is thoroughly and compactly grouted. For this purpose a grouting machine is used. A grouting composition made of Roman cement is mixed in this machine and forced, under an air pressure of 30 pounds, through small holes in the cast-iron segments,

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into the vacancies left around the tunnel by the shield. Beginning at the bottom, the cement is forced to the outside until it shows at holes in the side. Then the lower holes are permanently plugged and the cement is forced through the side holes until it flows in at the top; and finally it is forced through the top holes until no more can be forced through. By this means a solid casing, impenetrable to water, or even to gas, is secured. It serves more perfectly than a sheathing of solid masonry to protect the tunnel from moisture and to stiffen and sustain it.

The cars are supplied with longitudinal seats, lit by electricity, and luxuriously cushioned, the passengers facing each other. The locomotive is an electric motor, picking up its electricity from a central rail through which the electric current is conducted by a copper wire; and inasmuch as, for each track, there is a separate tunnel only a trifle larger than the train (which fills almost the whole of the annular space, except only at stations) each train acts as a piston, driving out, from station to station, the air through which the preceding train has passed. The stations are connected with the open air and are not more than three-quarters of a mile apart; any foul air which gathers in the tunnel is thus expelled by each passing train. Indeed, the air in the tunnel is of a more equable temperature, and is kept more constantly moved and freshened, than the air on the surface; and frequently on dark and murky days it has been noticed that the air and atmosphere, strange as it may appear, are far more pleasant in the tunnel than on the street surface.

In building two tunnels, running into each other only for station service, they can be superimposed or put side by side, as the exigency of the ground may demand; no more is taken out of the earth than is necessary for the purpose of building the tunnel, and whatever substance is removed is immediately replaced by material of at least ten times its resisting strength, and much lighter in weight. Every interstice between the outer surface of the iron rings and the rock or soil is filled with Roman cement, so that there is not the slightest danger of settling or displacement, either in the case of dwellings or of warehouses, no matter how huge the structure or how great the weight. The support given by the tunnel is at least ten times as great as that ren-

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dered by the material which has been removed; and whether the work proceeds under Trinity Church, or under a squatter's hovel, there can be no disturbance of the premises overhead.

While the City and South London Railway was under construction, the members of the Board of Municipal Control expressed their desire to be notified when the work approached the viaduct of the Southeastern Railway, so that their engineers might aid in devising a scheme for supporting the great abutments so as not to have their foundations disturbed; greatly to their surprise they found that the tunnel had already proceeded half a mile beyond the viaduct without its being known to them that the work was going on. Indeed, Mr. Greathead made the extraordinary statement that, in the whole progress of the work of three and a half miles, he was not compelled to pay one single penny of compensation for disturbance of foundations, though his tunnel ran under some of the largest and most substantial structures, including London Bridge, viaducts, great railway stations, and warehouses.

The condition being fulfilled that the tunnel be absolutely water and air tight, compliance with the fourth requirement (of wholesomeness) follows as a matter of course, provided that the motor itself and the tunnel in itself do not create noxious and unwholesome gases. The old underground railway of London was, and still is, lighted by gas. The ordinary illuminating gas of itself vitiates the atmosphere. The new tunnel is lighted by electricity; therefore this element of atmospheric vitiation is removed. In the old tunnel every car was, and still is, lighted by oil lamps, another source of vitiation of atmosphere in the cars themselves; in the new tunnel the cars are lighted by electricity, a pure and wholesome light, independently of its vast superiority as an illuminant. In the old tunnel the motor is a steam locomotive, consuming soft coal, and ejecting unpleasant and unwholesome vapors into the air, notwithstanding that the smoke-consuming apparatus of the engine has worked with reasonable success. The old tunnel is neither gas-proof nor water-proof; no brick tunnel can be. The new tunnel is far below and away from the communal services of a great city, such as water pipes, gas pipes, sewer service, and steam pipes; it sheds, by the method of

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its construction, all moisture that seeks to enter, and prevents the possibility of any leakage of gaseous vapors. The only opening to the surface is at the stations, through special ventilating shafts there erected, and through the natural ventilation caused by elevators and staircases. There can, therefore, be no air in the tunnel except that which comes direct from the streets, and this is kept in constant circulation by each train, as has been explained.

The rate of transit on the City and South London Railway is from 22 to 25 miles an hour—from three to four times as rapid as that attained on the elevated railroads of New York, except by express trains. A transit of 22 miles an hour, including stoppages, within a radius of 11 miles, assuming the City Hall in New York to be the centre of the radius, would bring 125th Street within 25 minutes' distance from the City Hall, and Washington Heights and West Farms within a half hour. For all practical purposes this system is rapid enough to meet the requirements of the most nervous, labor-loving, and dollar-chasing American citizen.

The success of the system thus introduced by Mr. Greathead and his friends in London, has been so marked that four similar projects have been immediately started, and one of these is now under way. Its projectors intend to build a very long line, the traffic of which will be somewhat analogous to that of the City of New York. This route, to be known as the Central London Railway, has just been authorized by Parliament, and its capital has been eagerly subscribed. The line runs from residential London, on the north side of Hyde Park, West End, and Bayswater, under new Oxford Street, past the Marble Arch, through old Oxford Street to Holborn, under the Holborn Viaduct to the Mansion House and Royal Exchange. In addition to this, in the other large cities of England, steps have already been taken which indicate that within a very short time the Greathead system will be practically the only popular intermural rapid-transit system in England. The question of the adequacy of electrical traction has been successfully solved in the first of these Greathead tunnels. The rapid improvements made, even since last November, in the construction of the engines leaves no room for question that any

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train of the weight and character of those which are carried on the elevated roads, with an equal load of passengers, can be moved by electric motors with greater rapidity, with greater safety, and with greater comfort in these tunnels than on the surface or elevated lines. The inhabitants of American cities have been in some sense fortunate that a combination of circumstances—some even arising from pernicious causes—has heretofore prevented the adoption of any intermural rapid-transit systems, which in the past would have been from necessity somewhat analogous to the old London underground railway. It required a combination of the genius of a civil engineer like Greathead with the latest inventions and improvements devised by a succession of electrical engineers, to bring together a method of construction and a system of traction which, for the present at least, and probably for many years to come, will prove to be the adequate and satisfactory system of rapid transit for large cities.

The question of cost, however, is another element to be considered before any system of intermural transit may be regarded as feasible. In this matter the Greathead system, unless compared with one that filches its right of way and then trusts to the chances of litigation to escape from the consequences, offers many advantages over every other. In the first place, it occupies space not hitherto available for any other purpose and therefore of little or no value. Secondly, although the cost of construction is higher than that of an elevated railroad through a street for the occupancy of which little or no payment has been made, its cost of maintenance is so slight as compared with the cost of maintenance of such an elevated structure (which is practically a bridge, and which, to be safe, must be renewed in all its parts in the course of one decade) that the amount available for interest payment and dividends is larger—or, in other words, the net cost of operation is smaller—by the Greathead plan than by any other.

When the project of the Central London Railway, which is constructing and is to be operated on this system, was before the House of Lords for final sanction, at one of its sessions in June, 1891, Mr. Hamilton Smith, managing director of the exploration company, asserted that this railway would carry from 25,000,

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000 to 30,000,000 passengers a year; and the "Daily Telegraph," in its issue of June 26, 1891, agrees with him in saying that this and the further estimate that in five or six years this number would, in all probability, be doubled, was not an exaggeration. In speaking of this system in the same editorial, the "Telegraph" says that the decision of the Lords' Committee (virtually the sanction of Parliament) in approving the bill marked the commencement of a new era in the history of Metropolitan intermural communication.

"It is the first step toward the establishment of that direct railway system which this City of Magnificent Distances [speaking of London] needs more than any other in the world, but for which it has had to wait for so many years. For the first time in his life the resident will cease to be restricted by means of communication from one Metropolitan point to another which, when direct, was not rapid, and, when rapid, was not direct."

The writer goes on to say that he looks forward with confidence to the time when many such lines will be established:

"Trains running noiselessly at many feet below the pavements, with no din to bewilder the passenger and no sulphuretted vapor to suffocate him and to poison the upper air through a 'blow-hole,' will present a far more engaging picture to the imagination, besides appealing far less unpleasantly to the senses, than the existing Metropolitan railway service. It will go some way to realize the ideal which the world's capital ought to set before itself in this matter."

This editorial expression applies with great force to New York. The existing means of transit are inadequate to move even the present population; therefore some new road must be constructed, and that at once. Present methods, for reasons too obvious to mention, will not be chosen to supply this public need. The soil of the city of New York, and the great value of real estate therein, the multitudinous service pipes which underlie our streets without system or regularity, the enormous traffic which is done upon them, are all causes combining to make the Greathead system the best adapted for purposes of rapid transit on Manhattan Island. It can go under the most important avenues and the most valuable houses without opening a single highway during construction, and without disturbance of foundations, occupying space of little or no value below the surface, notwithstandingthe great value of the land but a few feet above the tunnels.

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It is suggested that the Greathead system, while admirably adapted to clay, silt, sand, or other soft material, is ill adapted to the rock that underlies our island from Fourteenth street northward to above the Central Park, and that in such rock the old system of tunnelling, without lining or with brick arches, must be resorted to. This is a misconception. There is scarcely a continuous hundred feet of the rock underlying the city of New York free from natural fissures. It has also been so blasted, excavated, and disturbed at every point, that, independently of natural fissures, any number of clefts have been created by blastings, to establish streets, to build foundations of houses, and to lay sewers and gas and water mains. The consequence, were the rock excavation under the sewers, steam, gas, and water pipes to be without a gas-proof and water-proof lining, would be that the tunnel would become filled with moisture precisely as though it were in soft material, with the difference that the water and moisture lying in fissures would be under pressure and therefore more dangerous to a brick or rock-lined tunnel than if in clay, silt, sand, or gravel; and the pump would have to be kept at work constantly to eject exudations of the watery filth of a great city, unless the tunnel were constructed through the New York rock by the Greathead system.

There is, therefore, nothing in the nature of the material on which New York City stands which in the slightest degree interferes with the adoption of the Greathead system of tunnelling, if its citizens wish to secure the most perfect system of rapid transit now known.

SIMON STERNE.

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A NEW ROUTE TO THE NORTH POLE.

SINCE interest in the polar regions was first aroused by the search for the northwest and the northeast passages, there has been no lack of explorers ready to venture their lives to reach the North Pole itself. Attempt after attempt has been made, but all have failed, though our knowledge of the Arctic regions has slowly but surely advanced until it now has reached latitude 83° 24′ north—the point gained by Lockwood in May, 1882.

But why did all previous attempts fail? The reason is simple enough. The expeditions were everywhere, at a greater or less distance from the Pole, stopped by the drifting floe-ice which formed immense impenetrable masses and in most cases was carried down against the ships by currents from the north. Many bold sailors dreamt fantastic dreams about an open polar sea behind this ice barrier, but such speculations were of no use. It was impossible to penetrate the ice, and to walk over it was not much easier, since it is moved by constant currents from the north; there was no choice left but to return. No land has yet been found on which an advance toward the Pole would be likely to succeed; none of the lands we know seem to extend very far north of the latitude already reached.

Many people think that the North Pole can be reached through the air by a balloon or by balloon-ships, and that it will be so reached one day. I do not deny the possibility of this; on the contrary I regard it as very probable. But the only way at present would be to intrust one's self wholly to the wind, and this is no certain way so long as we have no knowledge of the wind-currents of these regions. A good result must in that case necessarily depend upon a combination of happy circumstances which are not common in the course of an ordinary human life. To go in a submarine boat under the ice would be rather risky, so long as submarine navigation is as little developed as it is at present. But is there no other way to reach the North Pole? It has already been mentioned that most polar expeditions have

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been stopped by irresistible currents from the unknown north, carrying immense masses of thick floe-ice. From this fact we seem entitled to draw a very simple conclusion, namely, that if there are opposing polar currents there must somewhere exist one or several favorable currents; for the water carried southward by the polar currents from the unknown regions must somewhere return to these regions. As expeditions have been carried by the ice southward from the very threshold of the unknown region, others may be floated into that region if they can only strike the current on the right side. There we have the way already pointed out; the problem is to find the right place.

If we consider the experience of whalers and sealers who have sailed for a long series of years in the Arctic seas on both sides of the Pole, one singular circumstance must strike us at once, namely, that ships caught in the ice on the side of the Pole near the Greenland Sea are carried southward, and that their crews run, as a rule, no great risk. Not so on the other side of the Pole, north of Bering Strait; ships caught in the ice there drift northward and often disappear, some with few and others with many men on board; most of them probably are destroyed in high unknown latitudes. This fact must lead the thoughtful observer to the conclusion that there are differences in the sea currents which may be used in favor of a polar expedition. Let us, therefore, examine the question more closely.

The most important polar current is beyond comparison that which runs southward along the east coast of Greenland. This has a considerable speed and carries an immense quantity of water out from the polar basin. It fills the whole opening between Greenland and Spitzbergen, with the exception of a narrow belt along the coast of the latter. The breadth of the current must be at least 250 nautical miles. Its depth is difficult to determine, but it runs over the deepest known bottom in the Arctic regions; there are measured depths of 2,600 fathoms. I do not think, however, that we are entitled to assume that the polar currents are usually deeper than 300 fathoms; perhaps not deeper than 200 fathoms. At the depth mentioned the current has a breadth of about 170 nautical miles. It runs, of course, much quicker at the surface than in its deeper parts, and it is

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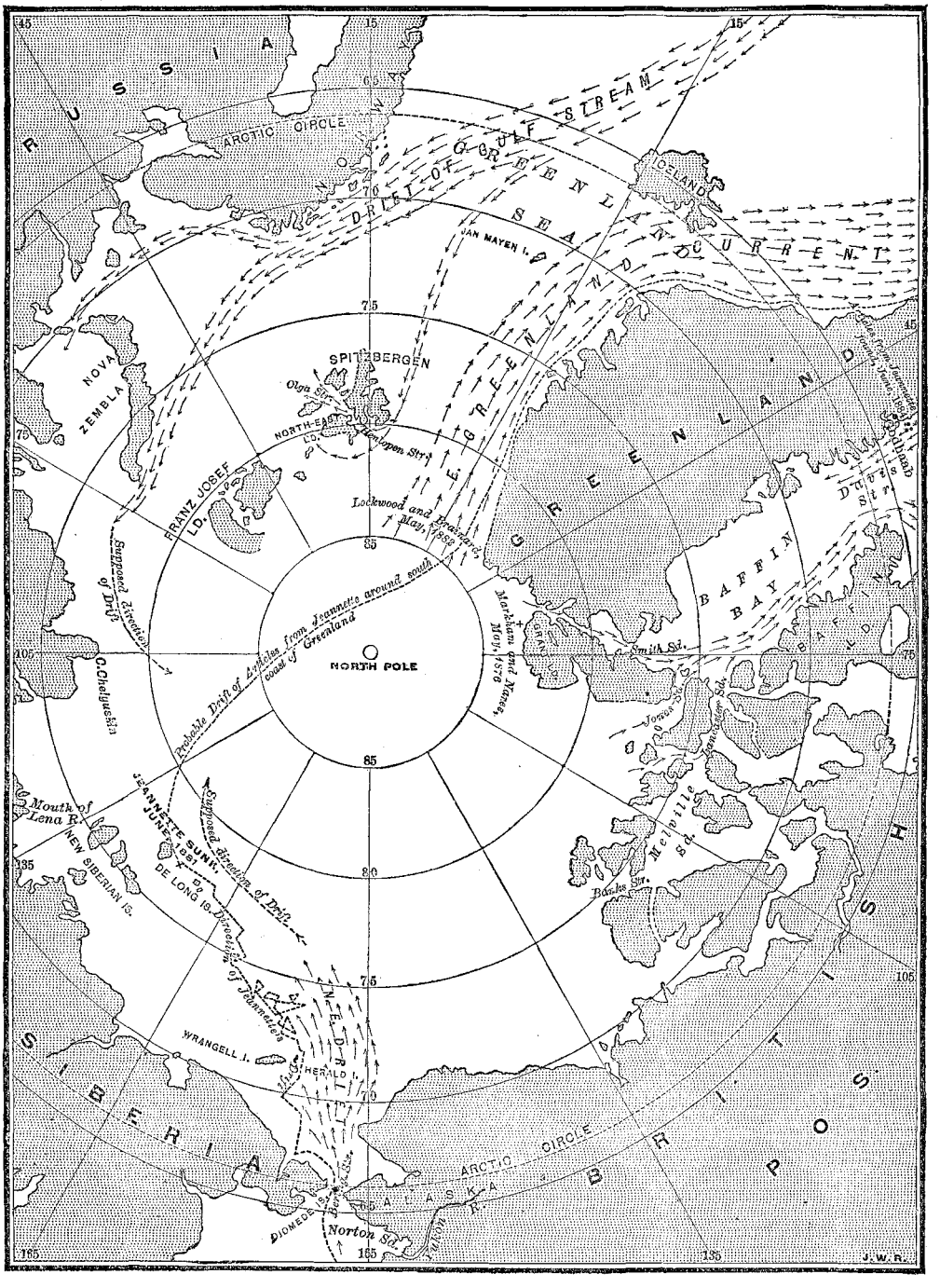

MAP OF ARCTIC CIRCUMPOLAR REGIONS.

DRAWN BY JACQUES W. REDWAY.

(The currents and drifts are charted in accordance with the authorities quoted by Dr. Nansen.)

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very difficult to get any certain information about its speed. Sometimes, especially in the summer months, it is very rapid, but at other times it seems to have a much slower course; the surface speed also, to a great extent, depends on the winds blowing during the time previous to the observation. Taking everything into consideration, I do not think we are entitled to estimate the average speed of the whole current for the year at more than two nautical miles a day. By this calculation we arrive at the conclusion that the polar current between Greenland and Spitzbergen carries southward between 80 and 120 cubic miles of water every twenty-four hours. Whence is all this water taken? It is evident that it cannot originate at the Pole itself; what flows out from the polar basin must be restored by water running in. It is also evident that the influence of a current so considerable as this cannot be limited to a small area; it must affect the polar basin like an immense pump, sucking the water even from the shores of Siberia and Bering Strait. This is the more certain as the polar basin is found to be unusually shallow wherever it has been measured.

There are only a few currents known which run into the polar basin. A small branch of the Gulf Stream is known to run northward along the west coast of Spitzbergen. This current is, however, narrow and very shallow, and thus is too insignificant to be of much value in this connection; to some extent it certainly also rounds the north coast of Spitzbergen, and returns southward again toward its eastern coast, partly through Henlopen Strait and Olga Strait and partly east of North East Land. Another branch of the Gulf Stream passes eastward to the north of Norway and enters the polar basin north of Nova Zembla. This current is considerable, and it often runs with a high speed along the coast of Nova Zembla, according to the common experience of Norwegian sailors. Our knowledge of it is not sufficient to enable us to form any certain idea about the quantity of water which it carries along; but according to the calculations of Prof. H. Mohn in his important memoir on the North Ocean*

*Prof. H. Mohn, "The North Ocean; Its Depths, Temperature, and Circulation. The Norwegian North Atlantic Expedition, 1876–1878." Christiania, 1887.

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I think that we may assume that it carries at least sixty or seventy cubic miles of water every twenty-four hours into the polar basin. Next to this Nova Zembla current the most important current running into the polar basin is certainly that which runs northward through Bering Strait. This current seems to be of considerably more importance than former ideas about it would indicate.* From descriptions of it that have recently appeared† we learn that it very often runs northward with a speed of two knots and sometimes even of three or four knots. During the spring the current seems to have an average speed of two knots when it is not stirred by winds. It very often gives the impression of being an immense river flowing toward the north and carrying immense quantities of driftwood. Captain Hegemann tells us, for example, that in July, 1860, there was so much driftwood floating through the strait past the Diomede Islands that his ship could advance only very slowly, and that he was obliged to turn and twist about as if he were sailing through masses of floe-ice. We know too little of the speed of this current, during the various seasons of the year, to be able to say anything with certainty about the quantity of water which it carries into the polar basin. But if we assume that the average speed is as much as half a knot, and remember that Bering Strait, according to Dall, is 49.33 nautical miles broad and has an average depth of 23.5 fathoms, we must see that about fourteen cubic miles of water is running northward daily.

These two currents certainly furnish the most important supplies of water to the polar basin and to the polar current along the east coast of Greenland. A third addition of water to this basin, which I have thought *a priori* to be of much importance, comes from the American, and especially from the Siberian

* According to H. W. Dall's paper, "*Hydrologie des Beringsmeeres*," etc. (Petermann's *Mittheilungen*, Vol. 27, pp. 261, 443; 1881), there should be no constant current running northward through Bering Strait, or at all events only a very slow and superficial one, while underneath a current should be running southward.

† Simpson, "Ice and Ice Movements in Bering Sea and the Arctic Basin." Hydrographic Office, Washington, January, 1890. Fr. Hegemann, "*Das Eis und die Strömungsverhältnisse des Beringsmeeres*," etc. "*Annalen der Hydrographie und Maritimen Meteorologie*," 1890.

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rivers that run into it. The drainage area of all these rivers is very considerable, embracing nearly the whole of northern Asia, or Siberia, down to the Altai mountains and Baikal, besides the principal part of Alaska and British North America. The rain and snow of this region is not, however, very considerable, and the whole quantity of moisture falling over Siberia, I have calculated to be no more than about 626 cubic miles in one year. On account of evaporation we cannot assume that more than a small part of this water reaches the polar sea; perhaps not more than one cubic mile every twenty-four hours. This is not much, compared with the size of the ocean currents, but this addition is of special importance, as it consists of fresh and comparatively warm water, which for a very long time keeps at the surface of the sea on account of its lightness, and thus produces surface currents running northward from the Siberian coast. This is also the reason why there is so much open water along this coast every summer.

The fresh water thus flowing into the polar sea can only to a very small extent originate from this sea itself, as it is mostly covered by ice, and where open water exists the very low temperature in those regions prevents much evaporation. The moisture of the air over the area draining into the polar sea must consequently originate mainly in the Atlantic and Pacific Oceans. The moisture falling over the Polar Sea itself must certainly to some extent have a similar origin, since warm and moist air is attracted from lower latitudes by the low pressure of the air over the polar regions. This constant addition of fresh water must evidently be the reason why the water of the polar current between Greenland and Spitzbergen contains somewhat less salt, even at considerable depths, than the water of the North Atlantic seas. We thus see that the polar basin is daily receiving a large and constant inflow of water. As little evaporation takes place from its ice-covered surface, there must necessarily be a corresponding outflow, and the most natural outlet is the broad and deep opening between Spitzbergen and Greenland. According to what has already been said, the water running out here seems very nearly to correspond in quantity to the inflow mentioned. Currents also run southward through Smith Sound,

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Jones Sound, and Lancaster Sound, in the Arctic Archipelago of North America, but as these sounds are very narrow and shallow, the body of water which their currents carry off is of little importance in this respect. The current running southward between Spitzbergen and Franz Josef Land is also insignificant when compared to the East Greenland current.

By regarding the before-mentioned contributions of water which the latter current probably receives, it may be possible to form some idea of the probable course of this current through the unknown regions. The waters of the North American rivers form, very likely, a part of the currents through the Arctic Archipelago of North America; a small part of the current through Bering Strait perhaps runs also in this direction. We have left, then, for the formation of the East Greenland polar current the principal part of the current through Bering Strait, the Siberian rivers, the Nova Zembla current, and the moisture falling over the polar basin. It seems quite natural that these sources should converge, and to some extent unite to form the Greenland current. We know also that the Nova Zembla current runs eastward or northeastward, while the current from Bering Strait runs westward. We must expect, therefore, to find the main body of the current which is formed in this way, lying somewhere to the north of the middle of that extended area from which it receives its converging sources, and this place must consequently be somewhere in the neighborhood of the New Siberian Islands. Here we also have the mouth of the Lena River, which carries a considerable body of comparatively warm water northward into the polar sea. From this region the current must naturally run in a northerly direction by the shortest way to the outlet between Spitzbergen and Greenland, and this must be to the north of Franz Josef Land and across or near the North Pole. But this course of the current may perhaps, to some extent, be disturbed by the winds. Let us examine which winds may be expected to be most prominent in these regions. So far as we know, a belt of low air-pressure seems to extend from the Atlantic Ocean along the south side of Spitzbergen and Franz Josef Land and into the Siberian polar sea. According to well-known meteorological laws, the principal direc-

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tion of the winds on the south side of this belt of low pressure must be from west to east, and this will tend to cause a current in the sea along the north coast of Siberia. The actual existence of such a current was, in fact, observed by the Swedish "Vega" expedition. The winds on the north side of this low-pressure area must, however, blow principally in an opposite direction, and may consequently be expected to cause a water current across the Pole toward the Greenland sea.

I have tried to convince the reader that, from what we know about the water currents and the winds along the "threshold of the unknown regions," we are entitled, or in fact are obliged, to assume that these regions are traversed by an ocean current runing from the north of Siberia toward the Greenland sea. But is there no direct evidence of the existence of such a direct current? I think there are several. The American "Jeannette," under the command of De Long, was, on September 16, 1879, caught in the ice to the east of Herald Island (north of Bering Strait) at about latitude 71° north, and longitude 175° west. This is the only case in which we know exactly the drift of a ship caught in the ice north of Bering Strait. Like all other ships caught there, the "Jeannette" drifted toward the north and northwest, but her course was at first very irregular and to a great extent dependent on the various winds that blew. Her main drift, however, had a decidedly northwesterly direction; this course grew straighter and straighter the more the ship advanced westward, and during the last half year of her drifting she kept a pretty straight course, advancing northwestward with an average speed of no less than two miles in twenty-four hours, until she was crushed in the ice and sank on June 13, 1881, north of the New Siberian Islands, at about latitude 77° 15′ north, longitude 155° east. This drift of the "Jeannette" shows that a current must be running northwestward from the sea north of Bering Strait, and it is possibly a direct continuation of the current passing through this strait. This current does not seem to have been very strong during the first part of the "Jeannette's" drift, as she was tossed about by various winds, but as she approached the region to the north of the New Siberian Islands the current seems to have had more influence on her drift, and the last week

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before she sank she often drifted along with a speed of more than eight miles in twenty-four hours. This was near the region where I suppose the Greenland current to originate.

More remarkable, however, in this respect, than the drift of the "Jeannette" itself is the fact that a number of objects belonging to her or her crew, were found on an ice-floe near Julianshaab, on the southwest coast of Greenland, just three years after she had sunk (June 18, 1884).* Among these objects the following may be mentioned here: 1, A list of provisions with the signature of De Long, the leader of the "Jeannette" expedition, written in his own handwriting; 2, a written list of the boats of the "Jeannette;" 3, a pair of trousers made of oiled linen, marked "Louis Noros," which is the name of one of the men saved from the "Jeannette" and still living.

When it was first made known that these objects had been found, some people in America were rather sceptical, and it was even pretended in American papers that the whole story was a lie. But how could it be so? What could the poor Eskimos of Greenland know about the "Jeannette" and her fate? The above-mentioned facts speak for themselves, and need no further testimony. We have consequently to deal with the fact that an ice-floe with objects from the "Jeannette" lying on it was found near Julianshaab. These objects must have been left on the floe either near the place where the "Jeannette" sank or somewhere on the route of her crew toward the Lena delta. From this region the floe must have been floated by sea currents to the southwest coast of Greenland where it was found. It is quite impossible that it could have come to this place through Smith Sound, Jones Sound, or Lancaster Sound, as the currents through these sounds run southward along the west side of Baffin Bay and Davis Strait along the east coasts of Baffin Land and Labrador toward Newfoundland. No ice or objects coming that way reach the southwest coast of Greenland, along which a

* These objects, 58 in number, were found by some Eskimos and were afterward collected by the director of the colony of Julianshaab, Mr. Lytzen, who has described them in a paper in the periodical "*Geografisk Tidskrift*" (Vol. 8, 1885–86, pp. 49–51), which is issued by the Danish Geographical Society in Copenhagen.

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current runs northward from the sea coast of Greenland and around Cape Farewell, carrying along all the floe-ice and foreign objects which are found on the southern part of the west coast. There can consequently be no doubt that the floe which carried these objects from the "Jeannette" was borne along by the East Greenland current.

The question therefore arises: By what route did it travel all the way from the New Siberian Islands to the east coast of Greenland? The shortest and most natural route would, of course, be across or near the Pole. There is, however, a possibility that the floe could have passed south of Franz Josef Land and Spitzbergen; let us therefore examine whether there is any probability of this. The floe must, in that case, have passed first between Franz Josef Land and Nova Zembla. There seems, however, to be no current running through this strait with a distinct western course. In the southern part of the strait a rapid and broad current is even running eastward.

The Norwegian sailors certainly think that they have observed a kind of current running westward along the south coast of Franz Josef Land and carrying floe-ice along, but this current is very slow and indistinct besides being quite narrow. The Austrians on board the "Tegethoff" (1872–74) were drifting in this strait during one year and a half, and were transported only from the north coast of Nova Zembla to the south coast of Franz Josef Land, while the objects from the "Jeannette" needed only three years to drift the long distance from the New Siberian Islands to Julianshaab in Greenland. In Austria Sound, among the islands of Franz Josef Land, the Austrians also observed a current carrying icebergs northward. Having passed south of Franz Josef Land the floe could not come through the strait between it and Spitzbergen, as the current there runs southward, so that it would necessarily be forced south of the latter. Having passed its south point, it must, however, have met with the before-mentioned Spitzbergen branch of the Gulf Stream and been floated northward. If it had not already melted then in the warmer water it might at last have met the polar current and been swept southward along its outer margin, all the time exposed to the warmer water coming from the

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south and west. The floe would then, however, most probably either be melted, or broken into pieces by the sea, or driven out to Jan Mayen, and it is utterly improbable that it should be able to reach the west coast of Greenland in that way. But even if it were really possible that a floe could overcome all the difficulties of such a complicated route, it could not have travelled so far during so short a time as three years.

We are, consequently, obliged to assume that the floe found its way across somewhere to the north of Franz Josef Land, and the objects from the "Jeannette" thus prove with all desirable clearness that there really exists such a current across the polar region as we have already concluded does exist, from our knowledge of the currents of the northern seas.

But there is other evidence on which we can base our belief in the existence of such a current. Several years ago a "throwing-stick" * of a peculiar shape was found on the west coast of Greenland, near Godhaab, and was afterward given by Dr. Rink to the ethnological museum of Christiania. Upon close examination it appears that the only place where throwing-sticks of a similar shape occur is in Alaska, in the region of Kaviak Peninsula, Norton Sound, and the Yukon delta.† The throwing-stick is, moreover, ornamented with Chinese glass beads which the Alaskan Eskimos buy on the Asiatic side of Bering Strait. Thus it can have no other home than the west coast of Alaska, and it can only have reached Greenland in the same way as the objects from the "Jeannette."

A third proof that a current must be constantly running from the sea north of Bering Strait and the Siberian coast, is the considerable amount of Siberian, and to some extent also perhaps of American driftwood, which every year reaches the coast of Greenland. I have had the opportunity of examining a great deal of this wood on the west coast of Greenland as well as on the east coast. I have found it floating also on the sea

* The "throwing-stick" or "harpoon-thrower" is a handle used by the Eskimos for throwing darts.

† See "The History of the 'Throwing-stick' which Drifted from Alaska to Greenland," by John Murdoch. "American Anthropologist," July, 1890, pp. 233–236.

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among the floe-ice. Its appearance generally indicates that it has not been in the water for a very long time. For the Greenland Eskimos the Siberian driftwood is a condition of existence, as it gives them material for all their weapons, implements, boats, sledges, tents, houses, etc., etc. Without it they would be in great trouble, but they need not fear in that respect, for new quantities of wood are brought them every year by the polar current. Similarly, Siberian driftwood is found on Spitzbergen, especially on its northern coasts, and also north of this land among the ice-floes carried southward by the polar current from the north. This seems a good proof that the wood must be drifted across from Siberia, passing somewhere near the Pole.

A fourth proof that a current is constantly running across the polar regions is the thickness of the ice carried constantly southward along the east coast of Greenland. This ice is much thicker than any other ice masses known in the northern seas, the flat floes being forty or fifty feet thick, or even thicker. Ice of such thickness must have floated for a very long time in the sea, and as immense masses of similar ice are constantly carried southward, it cannot possibly have been formed in the sea north of Spitzbergen or anywhere near the Pole, for in that case it would not have had time to grow thick in floating to the lower latitudes where we meet it. Along the Siberian coast as well as in the sea north of Bering Strait the ice is always comparatively thin (seven to ten feet). This must indeed strike one as being very strange, considering that the Siberian sea, and especially the sea near the New Siberian Islands, is part of the coldest region known on the earth. The reason is evidently that the ice of these seas is every year carried northward by the currents, and it is the same ice which we find again in the East Greenland polar current, and which has grown thicker on the way across the polar regions.

By examination of a great many specimens of pumice found on the shores of Norway, Spitzbergen, and Greenland, Bäckström, a Swedish geologist, comes to the conclusion that they consist of andesites and cannot originate from any volcanic region in or near the Atlantic Ocean, as no pumice of similar structure and composition is known in these regions. The pumice stones

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must therefore have been carried southward by the polar current, and must either have originated from unknown volcanoes in the polar regions or from the great andesitic volcanic regions near Bering Strait. The latter supposition seems to be the more natural, and the pumice stones then have been floated northward by the current through Bering Strait and across the polar regions, along the route followed by the throwing-stick from Alaska. And as great quantities of this pumice stone occur on the above-mentioned coasts there must have been a constant connection by the aid of sea currents between the latter place and the place where the pumice originated.

From all these facts we may seem fully entitled to draw the conclusion that a current is constantly running across the polar region somewhere north of Franz Josef Land from the sea north of the Siberian coast and Bering Strait, and into the sea between Spitzbergen and Greenland. Since such a current exists, the most natural way of reaching the North Pole, or a point quite near it, must be to enter the current on the side where it runs northward, that is, somewhere near the New Siberian Islands, and let it carry one straight across those unknown regions which it has prevented so many from reaching. There are two methods of trying to obtain this result: first, to build a strong ship so constructed that it can withstand the pressure of the ice, and, living in this ship, to float across with the ice; or second, to take only boats along, encamp on an ice-floe, and live there while floating across.

My plan is based on the use of both of these methods. I shall build a wooden ship as small and as strong as possible; it shall be just big enough to carry provisions for twelve men for five years, besides the necessary coal; a vessel of about 200 tons will suffice. It shall have an engine strong enough to give a speed of six knots, and, besides, it shall have full rig for sailing. The most important feature of the ship will be that she shall be built on such lines as will give her the greatest power of resistance to the pressure of the floe-ice. Her sides must not be perpendicular, as those of ships generally are, but must slope from the bulwarks to the keel; or, to use a sailor's expression, her "dead rise" must be made great, so that the floes shall get no

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hold of her when they are pressed together, but will glide downward along her sides and under her, thus tending to lift her out of the water. The sides of most ships used in the Arctic seas have been almost straight up and down, in spite of which defect they have stood the pressure of the ice pretty well, and many of them have even been lifted completely out of the water and have for longer or shorter times stood dry on the ice without being damaged. Though the "Jeannette" had a shape which in this respect was very bad, she managed to withstand the ice pressure for nearly two years. It will consequently be understood that a very slight alteration of shape will give us a very strong ship, and one which can scarcely be crushed by the ice if it is properly handled. For the same reason the vessel ought to be as small as possible, as the lighter she is, the more easily she will be lifted by the ice, and the less pressure there will be on her sides; it is also easier to make a small vessel strong than a big one. A small ship has other advantages, as it is more convenient to navigate and to handle in the ice, and as it is easier to find good and safe places for it between the floes.

The building of this vessel is just about to begin. She will be built of excellent oak, her sides will be made very thick, and inside she will be strengthened by a system of strong beams and braces. Her bow will be extraordinarily strong. Outside she will have two oak plankings, one without the other, and outside of these a third planking of hard oak or greenheart. I am also thinking of giving her a thin sheathing of mild steel several feet broad along the water-line, in order that the ice shall not be able to cut into and damage her wooden sides when it is pressed against them. The difficulty will be, however, to fasten this sheathing properly. I feel certain that the ship will be the strongest ever used in the Arctic regions, and that she can be crushed only in an extraordinary combination of circumstances. With this vessel, and a crew of ten or twelve strong and well-picked men, besides an equipment for five years as good in all respects as modern appliances can afford, I think the enterprise has a good prospect of success.

Captain Otto Sverdrup, who accompanied me on the journey across Greenland, is going to take command of the ship. Among

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the crew there will also be four or five scientific men, who will help with the scientific observations, etc. It was my intention to start in February of next year, but I fear that we shall not be able to get ready by that time. In the summer I intend to go through Bering Strait and along the north Siberian coast toward the New Siberian Islands. From the experience of American whalers it appears generally possible to pass Bering Strait in June. When we have arrived at the New Siberian Islands we shall have to wait for the right moment to reach the farthest possible point north in the open water. I think this will probably be in August or in the beginning of September. To be able to get a better view of the surroundings, and to examine in what direction there is open water, etc., I think of using a captive balloon from the ship. At the most favorable moment we must push northward as far as we can. This will be very likely along the western coasts of the islands, as I expect to find most open water there. When we can get no farther we shall have nothing left but to run into the ice at the most favorable spot. We shall then be in the current which the "Jeannette" struck, and, like her, shall be carried northwest. The ice will perhaps soon begin to press, but it will only lift our strong ship, and this will give us good quarters on the floe. While drifting we shall have plenty of time and excellent opportunity to make scientific observations of great importance. Probably we shall in this way, in the course of some years, be carried across the Pole or near it, and into the sea between Spitzbergen and Greenland, where we shall get into open water again and be able to return home.

There is, however, a possibility that the ship, in spite of all precautions, may be crushed in the ice; but if this happens the expedition will have another resource. It will now be time to use the ice as quarters instead of the ship, and we shall have to move all our provisions, coal, boats, etc., to the ice-floe and encamp there. For this purpose we shall probably, besides the common light boats, take a boat big enough for all our men to sleep in. This boat will be like a second ship, only on a much smaller scale; and as it will stand on an ice-floe it cannot be crushed. Besides we shall take warm and light tents made of

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a double layer of canvas, or some similar stuff, well filled between with reindeer hair. That there is no great risk in leaving the ship and taking refuge on the drifting ice-floe, we have to some extent learned during our Greenland expedition. Other expeditions have drifted in a similar way for considerable distances and during many months, without an accident. I need only here mention the "Hansa" crew, and the men from the American "Polaris" expedition. In the polar regions specially one would run no risk by drifting on the floes, as the waters there are mostly covered by floating ice and are consequently quiet. There is therefore no surf, which in other regions may be rather disagreeable, judging from our experience in the drift-ice on the east coast of Greenland. When we emerge into open water on this side of the Pole, either near Spitzbergen or near Greenland, there will not be much difficulty in returning home in our boat.

There is, of course, a possibility that we may be stopped by unknown lands near the Pole, or that we may strike an eddy or a side current, but I cannot understand that we run any risk in either of these cases. If, in the former case, we should fail to get our ship afloat again, we should have to leave her, and with our boats and necessary equipment strike out for the nearest current to drift on again, or return homeward dragging our boats over the ice. But if the distance should be too great, we should leave all boats and, taking only sledges with necessary provisions, etc., besides plenty of canvas, walk on until we reached Spitzbergen or any other land where there is open water; here we would make boats of canvas, or perhaps of the skins of seals and walruses, like those we made in Greenland. In the latter case a side current must bring us somewhere, it cannot forever run in a ring near the Pole; and wherever we come near the coasts of the polar sea we shall have no difficulty in returning home. It may be possible that the current will not carry us exactly across the Pole, but it will probably not be very far off, and the principal thing is to explore the unknown polar regions, not to reach exactly that mathematical point in which the axis of our globe has its northern termination.

To say how long such an expedition will last is, of course, not easy, as this to a very great extent will depend on the current.

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As we have seen, the objects from the "Jeannette" drifted in three years from the New Siberian Islands to the west coast of Greenland. If we assume that they required one year for the drift southward from latitude 80° north, on the east coast of Greenland, only two years remain for the rest of the journey, and this requires a speed of no more than two nautical miles in every twenty-four hours. This does not seem too high a rate when we remember that the "Jeannette" drifted at the same speed during the last half year of her drifting, and that in the last days before she sank she drifted at a much higher speed, which sometimes reached even eight nautical miles every twenty-four hours. It cannot therefore be considered improbable that we should reach open water on this side of the Pole within two years after our start from the Siberian side; and if we take provisions for five years we may consider that we have an ample margin.

It will be no holiday trip, this drift through regions where the days last six months, and the nights are no shorter; but it is not to seek pleasure that we go out. People perhaps still exist who believe that it is of no interest or importance to explore the unknown polar regions. This, of course, shows ignorance. It is hardly necessary to mention here of what scientific importance it is that these regions should be thoroughly explored. The history of the human race is a continual struggle from darkness toward light. It is therefore to no purpose to discuss the use of knowledge; man wants to know, and when he ceases to do so, he is no longer man.

The expense of the expedition, the plan of which I have above described, will be met in Norway. The Norwegian National Assembly granted last year a sum of 200,000 *kroner* ($55,000) toward the expenses, and about 107,000 *kroner* ($30,000) are given by the Norwegian king and twelve private citizens in Norway. This will, I believe, be about sufficient, and the expedition will start as soon as we can get ready.

FRIDTJOF NANSEN.

LYSAKER, near Christiania, Norway.

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WILL DR. NANSEN SUCCEED?

WHILE it is impossible to enter fully into detail about Dr. Nansen's scheme of polar exploration within the limits of a magazine article, yet the essentials can be discussed. To begin, it is advisable to point out the erroneous impression conveyed by his opening sentence, that the sledge journey of Lockwood to Cape Washington was a search for the already discovered northwest and northeast passages, or, indeed, that it was a polar search at all. The international expeditions of 1882–83 were not exploring expeditions similar to those of Parry, Franklin, Kane, Hall, Hayes, Nares, DeLong, and Nansen; they were sent forth for simultaneous and comparative observations of magnetic, meteorological, and other physical conditions. Lockwood's journey, while it resulted in reaching the highest north yet attained, was only an incident of his attempt to trace the extension of Greenland, which was believed by some to extend eastward or southward of Cape Britannia. If Lockwood and Brainard had tried to reach the North Pole, they would have crossed the 84th parallel. They could have crossed it had they gone due north from Cape Neumayer, or if the two days that they spent in determining their position at Lockwood Island had been devoted, instead, to a journey due north, and if they had determined the farthest point reached, as Hayes and Markham did, by a meridian altitude.

No, it was not a polar quest, and it succeeded beyond expectation, although Nansen asks: "Why did all previous attempts fail?" "The reason," he continues, "is simple enough," and then he dwells on the "immense impenetrable masses" of drifting floe-ice. Travel along the north coast of Greenland is safe and practicable, and, if geographical work had been the object and end in view, the Lady Franklin Bay expedition would have landed at Thank God Harbor, from which a latitude of 85° north would have been far easier for Lockwood and Brainard to

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reach than their farthest point—83° 24′—was from Lady Franklin Bay, while they were working, with an open but ice-filled strait 20 miles wide between field-work and home station, for eight months in the year.

Recurring to the main topic—the Norwegian expedition—it strikes me as almost incredible that the plan here advanced by Dr. Nansen should receive encouragement or support. It seems to me to be based on fallacious ideas as to physical conditions within the polar regions, and to foreshadow, if attempted, barren results, apart from suffering and death among its members. Dr. Nansen, so far as I know, has had no Arctic service; his crossing of Greenland, however difficult, is no more polar work than the scaling of Mount St. Elias. It is doubtful if any hydrographer would treat seriously his theory of polar currents, or if any Arctic traveller would indorse the whole scheme.

There are perhaps a dozen men whose Arctic service has been such that the positive support of this plan by even a respectable minority would entitle it to consideration and confidence. These men are: Admirals McClintock, Richards, Collinson, and Nares, and Captain Markham, of the Royal Navy, Sir Allen Young and Leigh Smith of England, Koldewey of Germany, Payer of Austria, Nordenskiold of Sweden, and Melville of our own country.

I have no hesitation in asserting that no two of these believe in the possibility of Nansen's first proposition—to build a vessel capable of living or navigating in a heavy Arctic pack, into which it is proposed to put his ship. The second proposition is even more hazardous, involving as it does a drift of more than 2,000 miles in a straight line through an unknown region, during which the party in its voyage (lasting two or more years, we are told) would "take only boats along, encamp on an ice-floe, and live there while floating across."

Let us briefly dwell on the three main points: first, favorable sea-currents; second, the indestructible ship; and last, the practicability of boat life and navigation under known conditions of polar travel. While the last two are matters falling within the domain of comparative experience, the first point is almost purely theoretical. Even did space permit, it would be useless

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to examine fully Dr. Nansen's statements regarding the favorable polar currents which he counts on as his means of reaching the pole. His mental attitude is shown by his treatment of Dall's careful and scientific work of months in the investigation of Bering Strait; these results are coolly discarded on the strength of such casual observations as chance to confirm Dr. Nansen's theory. Let us pass to the supposed drift-relics found on the west coast of Greenland, dwelling on which at length Nansen says: "The objects from the 'Jeannette' thus prove, with all desirable clearness, that there really exists such a current across the polar region." No careful investigator would deny the possibility of such a drift, but it appears that before sending out a polar expedition on the basis of the drifting of "Jeannette" relics to the west coast of Greenland, it would be a judicious course to secure an identification, especially as it could be done in a few weeks and at an expense of a few cents for postage.

Dr. Nansen, however, adds:

> "When it was first made known that these objects had been found, some people in America were rather skeptical, and it was even pretended in American papers that the whole story was a lie. . . . The above mentioned facts speak for themselves, and need no further testimony."

It is pertinent to say that "some people in America" are still "rather skeptical" and of those the most important witness is the only living officer of the "Jeannette," Commodore Melville, chief of the bureau of steam engineering, United States Navy. He has several times stated to me his firm conviction that the articles mentioned in the published account could not be from the "Jeannette." Within a few weeks, he has reiterated his disbelief that any articles from the "Jeannette" were thus found, and adds that when the objects were said to have been discovered, he suggested to a member of the Danish Geographical Society the desirability of identifying the relics. Melville wrote that he would travel 500 miles to identify any articles that might be sent to any Danish consul or other official in this country.

Probably drift articles were found, and it would seem more reasonable to trace them to the "Proteus," which was wrecked in Smith Sound, about 1,000 miles north of Julianshaab. The drift of the "Resolute" in 1853, of the "Fox" in 1859, and of the

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"Polaris" party in 1872 show, what is well known from other sources, that there is a steadily-flowing current southward from Smith Sound into the Atlantic. The "Proteus" sank in July, 1883, so that a drift of eleven months must have brought southward many articles; and, while a current flows north along the coast of Greenland, yet it must frequently receive ice and other drift from the southward current somewhat off shore.

It is further important to note that, if the articles were really from the "Jeannette," the nearest route would have been not across the North Pole, along the east coast of Greenland, but down Kennedy Channel and by way of Smith Sound and Baffin Bay, as was suggested as to drift from the "Proteus." Smith Sound was full of floating ice all the autumn and winter of 1883–84, drifting steadily southward, as all at Cape Sabine then realized too sadly. Such a route is hundreds of miles shorter than the one outlined by Nansen, and even one hundred miles is a great distance in the polar pack.

Grant, however, that the alleged "Jeannette" relics are genuine, and that they passed to the northward of Franz Josef Land; it by no means follows that, if Nansen should drift in the same direction, he would pass within several hundred miles of the North Pole. No man knows what are the exact physical conditions at the North Pole, but we do know, almost as well as if we had seen it, that there is in the "unknown regions" an extensive land, which is the birthplace of the flat-topped icebergs or paleocrystic ice. I have seen the original drawings and photographs of the remarkable Antarctic ice observed by the "Challenger" expedition, and its identity with the paleocrystic ice of the North is beyond question. The well-known scientist, the late Dr. W. B. Carpenter, clearly indicated the manner in which are formed enormous ice-floes, from 1,000 to 2,000 feet thick. This heavy ice was seen in the Arctic regions by Maclure northeast of Bering Strait; by Leigh Smith, in great quantities as he informs me, along the northwest coast of Franz Josef Land; and by Nares and by my own expedition to the north of the Smith Sound region. Occasionally, pieces have been seen along the east coast of Greenland; elsewhere, this ice is unknown

In other words, this ice forms on an extensive land area, and

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is seen only in the half of the polar regions which lies to the north of America, Greenland, and Nova Zembla. Carpenter estimates the circumference of the Antarctic ice-cap at 10,000 miles, and from it comes ice 2,000 feet thick. I have seen a flat-topped berg which must have been from 800 to 1,000 feet thick, and it would be reasonable to assume that the ice-cap from which it came must be, say, 300 miles in diameter. Such an area of ice-capped land must be very peculiarly placed if, sending forth flat-topped bergs to Franz Josef Land and Greenland, it does not include the Pole within its limits.

As to the indestructible ship, it is certainly a most desirable structure for Dr. Nansen, who proposes to enter Bering Strait, where, as he admits, "ships caught in the ice drift northward and often disappear forever." Out of the two score or more ships which have been completely beset by the pack to the north of Bering Strait, he will find it difficult to name one which has ever reappeared, or one from which the whole crew has escaped. Dr. Nansen appears to believe that the question of building on such lines as will give the ship the greatest power of resistance to the pressure of the ice-floe has not been thoroughly and satisfactorily solved, although hundreds of thousands of dollars have been spent for this end by the seal and whaling companies of Scotland and Newfoundland. So well built as regards lines and strength was the "Proteus" of St. John's that she was once beset in heavy ice off Labrador and for 30 days was completely out of water; but she succumbed immediately to the heavy floes of Smith Sound.

On this point, Melville, from his training and experience especially competent as an authority, says:*

"I consider it impossible to construct a floating body which will be able to resist the tremendous strain of the polar ice-packs; it might not be crushed for months, but the contingency might arise the first day that two floes would close on it and overwhelm it like an almond in the jaws of a nut crack. For the wonderful potency of these floes is incredible, and can only be calculated in millions of tons, or rather square miles of ice, averaging twenty-five feet in thickness, or forty feet where the usual winter's growth of ten or twelve feet is rolled up into hummocks; telescoping and piling up, these vast masses form the greatest gorges, which only the hydraulic power of nature can move."

* "In the Lena Delta," p. 475.

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Every Arctic navigator of experience agrees with Melville's dictum that, even if built solid, a vessel could not withstand the ice-pressure of the heavy polar pack. Even if the strength of the ship should be such as successfully to resist the pressure, or if her lines would enable her to rise unharmed above the closing floes, yet the dangers are nearly as great from the disruption of the pack, or from the pressure of overhanging ice masses which Back experienced in the "Terror" and Hall in the "Polaris."

But it may be said that the experience of the "Terror" in Hudson Strait and of the "Polaris" in Thank God Harbor need not be feared in the proposed route, since Nansen reassuringly states that "along the Siberian coast as well as in the sea north of Bering Strait, the ice is always comparatively thin (seven to ten feet)." One needs only to consult Melville's "In the Lena Delta" to see how fully the actual experience of the "Jeannette" refutes the opinion of Dr. Nansen. Melville, giving an account of the gale in January, 1880, says:*

"The placid and almost level surface of ice suddenly heaved and swelled into great hills. . . . Giant blocks pitched and rolled. . . . Sunk in an amphitheatre, above five eighths of a mile in diameter, lay the ship, the great bank of moving ice, puffed in places to a height of fifty feet, gradually inclosing her on all sides. . . . Certain it is that had the 'Jeannette' been two hundred yards in any direction out of the exact spot she then occupied on the floe, she would have been overwhelmed and destroyed by the grinding masses, as readily as a 'sojer crab' on the beach is buried beneath the roll of the surf."

In another place,† describing a scene where the "Jeannette" duplicated the experience of the "Terror," Melville says:

"Huge floe-bergs as large as churches bobbed up and down like whales. . . . There was imminent danger of the hummocks and bits weighing from twenty to fifty tons toppling over, as they were on all sides crushing or burying her. . . . Suddenly the floe split along the port side, parallel with the keel, leaving a long lane of open water, with the starboard side still imbedded in the ice as in a mould. . . . Should the floe pieces come together again and overlap or under-run, the 'Jeannette' would be crushed like an egg-shell. . . . The ship became entirely surrounded by the towering, telescoping hills of ice."

The "Hansa" of the second German Arctic expedition, Cap-

* P. 12. † P. 9.

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tain Koldewey, had lines which enabled her to rise, but she was wrecked nevertheless. The account runs:

"But soon some mighty blocks of ice pushed themselves under the bow of the vessel, and although they were crushed by it, they forced it up, slowly at first, then quicker, until it was raised seventeen feet out of its former position on the ice."

Lastly, all drift experiences have entailed terrible hardships and dangers, even when the explorers have been floating toward daylight and warmth, as in the boat journey of the "Polaris" in Baffin Bay and in that of the "Hansa" on the east coast of Greenland. Note one instance only after the loss of the "Hansa":*

"The floe surrounding us split up; a heavy sea arose. Our field began to break on all sides. On the spot between our house and the piled-up store of wood, which was about twenty-five paces distant, there suddenly opened a huge gap. Washed by the powerful waves, it seemed as the piece just broken off was about to fall upon us, and at the same time we felt the rising and the falling of our now greatly reduced floe. All seemed lost. From our split-up ice-field all the firewood was drifting into the raging sea. And in like manner we had nearly lost our boat 'Bismarck'; even the whale boat was obliged to be brought for safety into the middle of the floe. The large boat, being too heavy to handle, we were obliged to give up entirely. All this in a temperature of —9.5° C. (+15° Fahr.) and in a heavy storm, was an arduous piece of work. The community was divided into two parts. We bade each other good-by with a farewell shake of the hands, for the next moment we might go down."

Equal dangers could be quoted from the record of the "Polaris" drift, and from my own experiences—but enough. Imagine, if one can, the horrors which a drift-journey in boats would entail, even in latitude 84°, with five months of unbroken night and continuous cold of extreme severity. Even if the travellers were spared by the ice-pack, disability of a single man from frost bites, scurvy, or other disease would, in a critical situation, necessitate, as in DeLong's case, sacrifice of the main party, or the heartless abandonment of a comrade.

Arctic exploration is sufficiently credited with rashness and danger in its legitimate and sanctioned methods, without bearing the burden of Dr. Nansen's illogical scheme of self-destruction.

A. W. GREELY.

* "The German Arctic Expedition," Capt. Koldewey, p. 131.

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FINANCIAL.

THE CAUSES OF GOLD EXPORTS.

THE shipment of 60 millions of gold to Europe in the short space of a few months, the most of it in less than two months, is an event in finance so notable, as in its causes to be well worth the study of every one interested in the public good.

The magnitude of the movement first arrests attention. What do 60 millions represent? Let us reflect that the entire coin held by the Bank of England, in ordinary times, is only about 100 millions, and that this amount serves mostly for the reserve, not only of that bank itself, but also for all the great banks of London and is, in fact, the pivot on which turn the great commercial transactions of the world of which London is the settling centre. Again, 60 millions is about all the gold remaining in the vaults of the associated banks of New York, the reserves of which play so important a part in the business activities of the United States. This amount, then, is of immense importance, and is so especially at the present time, when the public mind is so sensitive, in view of the great flood of depreciated silver which is being poured into our circulation. Let us, then, look with care into some of the causes of this transfer from our shores of this great amount of the representative of the world's wealth.

The condition of fiscal affairs abroad for some months past has been one of disturbance and apprehension; the great failure of the Barings led prudent men the world over to pause and to prepare for other storms which might follow. Especially did it direct attention to the small reserves of the English banks—relatively much less than our own. Mr. Goschen wisely chided this weakness of those banks in one of his public speeches during the last winter. Distrust on the Continent contributed to similar action on the part of the bankers and brokers there, and we thus witness a strengthening, all along the line, of the reserves of the great institutions of Europe. At the same moment, the great Russian bear reaches out his paw and gathers into his own sub-treasury, called the Imperial Bank, his great deposits of cash, estimated by some as high as 100 millions of dollars.

This concerted scramble for the precious yellow coin strikes at the hoards in the United States in some ways which it will now be of interest to consider. Immense amounts of American securities have been sent to Europe in years past and have been largely marketed there. They have also served as collateral to large loans made by bankers and others, and have thus served to even up, till now, any

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balances of trade made against us. We witness now a cessation of such shipment of securities and a calling in of such loans, which have now to be made in our own market. At the same time currency bonds held by European investors have, to some extent, been sent back to be sold; and the proceeds, if not reinvested in bonds payable in gold, have been remitted to the owners. Again, the great importations of the past year, in view of the change in the tariff, have been distributed throughout the country, and every dollar's worth of them, wherever sold, has to be remitted for to New York, where the money makes but a short stop in its transit to Europe. There, heavy importations have continued into the present year, and they are now supplemented by the great tide of American travel, which always plays so important a part in our foreign exchanges. It should be remembered that if the number of travellers is 60,000, and each one spends $1,000, our amount of 60 millions is accounted for at once.

The spring, again, is the time when we have less produce to send abroad, and this is specially felt the present year in consequence of the poor crops of the last year. It is at this season, also, when the rate of exchange is high, that our bankers are in the habit of drawing against their credits, and such drafts, with perhaps one renewal, mature when a lower rate of exchange enables the bankers to repay at a handsome profit. Such drafts, however, at the present time are not, it is supposed, wanted for discount in the great money centres of Europe, and hence gold has to take their place.

It is not improbable, also, that distrust of the currency of our own country has contributed its share to driving from our midst this large stock of the precious metal. Heretofore we have sent abroad annually a large quantity of silver, which now has to be bought and put into circulation at home, and gold has to take its place in the adjustment of our debit balances abroad. The fear of a silver basis on the part of many timid people has led to the locking up of more or less gold; and why should foreign fears be less than our own? It is known, also, that large amounts belonging to the great Canadian banks are usually loaned in this market. It would be easy to transfer some part of such loans to Europe, where it is certain that they would remain gold, and where gold has for the most part, of late, been available at as high a loanable rate as in our own market. While it is not generally believed that the distrust of our being able to remain on a gold basis has been a very important factor in our recent gold exports, yet some mention of it is necessary in enumerating the causes of this movement.

We have thus seen that a combination of conditions has brought about this notable event in finance which we have been considering, and we might indulge a thought of pride that our great country has stood the strain so easily, were it not that we have to remember that the larger part of our remaining circulating medium is of less intrinsic value than the part we have sent away.

G. G. WILLIAMS.

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WRITERS IN THE AUGUST FORUM.

DR. FRIEDRICH HEINRICH GEFFCKEN (born in Hamburg, 1830) is professor *emeritus* of international law in the University of Strasburg and an Imperial Privy Councillor. He is the author, among other books, of "State and Church;" "Socialism;" and "The Papacy."

MR. ISAAC A. HOURWITCH (born of Jewish parents in Russia in 1860) was a political exile in Siberia in 1881–85. In 1887 he was admitted to the bar, and in 1890 he escaped arrest by coming to the United States. He is the author of several sociological monographs.

BARON DE HIRSCH, the Hebrew philanthropist, has given large sums for the relief of his co-religionists in Russia, including $2,400,000, known as the American Baron de Hirsch fund, for the benefit of Russian Hebrew immigrants to this country.

GEN. FRANCIS A. WALKER (born in Boston, 1840) was superintendent of the census in 1870 and 1880. In 1881 he became president of the Massachusetts Institute of Technology.

SEÑOR RICARDO L. TRUMBULL was born of American parents, in Talcahuano, Chili, in 1860. He was graduated at Yale in 1881. In 1888 he was chosen to the Chilian Congress as a Radical, and he is now a confidential agent of the congressional government.

GEORGE EDWARD WOODBERRY (born in Beverly, Mass., 1855) was graduated at Harvard in 1877. He is by occupation a writer on literary subjects, and a constant writer for critical journals. For the next year he will be professor of English at Columbia College.

MR. SIMON STERNE (born in Philadelphia, 1839) is a lawyer in New York City. He has long been active in railway matters, and is the author of a number of books on public questions.

GEN. LIONEL ALLEN SHELDON (born in Otsego Co., N. Y., 1829) served in Congress in 1869–75. He was governor of New Mexico in 1881–85, and recently has engaged in fruit-culture in California.

MR. EDWARD P. CLARK (born in Huntington, Mass., 1847) is a member of the editorial staff of the New York *Evening Post*. He was graduated at Yale in 1870 and has since been engaged in journalism.

DR. FRIDTJOF NANSEN was the first Arctic explorer to cross Greenland, performing the journey on foot. He is a Norwegian.

GEN. ADOLPHUS WASHINGTON GREELY (born in Newburyport, Mass., 1844) entered the army in 1861, was in command of the well-known Greely Arctic expedition in 1881, and in 1887 became chief of the signal-service corps. He is the author of "Three Years of Arctic Service."

MR. G. G. WILLIAMS is the president of the Chemical National Bank of New York City.

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